The National Future Farmer

Owned and Published by the Future Farmers of America

December-January, 1969-70

"Me and Snowfoot have worked half the spreads in Wyoming. Can't recollect just how long I've ridden him, but I do know I bought Snowfoot and this pair of Levi's on the same day. And ain't neither of 'em wore out yet."
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The National
Future Farmer

VOLUME 18 NUMBER 2 DECEMBER-JANUARY, 1969-70

Departments

From the Mailbag	4	The Chapter Scoop	36
Looking Ahead	6	Free For You	40
Word With The Editor	13	Something New	41
Sportrait	35	Joke Page	42

Features

Shifts in Farming Arrangements 8

Up until the last few years about the only port of farming that wasn't changing was the patterns of getting started in farming. However, the smoothness of a farm operation depends on how well farming arrangements work. Thus, young men and their fathers have tried to adapt their arrangements accordingly. This entry borrier article tells of the many arrangement trends and modifications, and why they are happening.

The National FFA Convention 9

History wos made in Kansas City when the FFA held its 42nd National Convention. And the excitement of the 1969 Convention comes to you from on-the-spot coverage in newspaper style. Stories announcing the election of the new national officers, Stor Farmer and Star Agri-Businessman, the speaking winner, and other important convention events give you o complete picture of the FFA making history. Read them all.

AgriOPPORTUNITIES 11

This big 24-page section is devoted to coreers in agriculture. The career supplement gives you a broad view of the opportunities in agriculture, and explains what you would be doing in each occupational area. The leod-off feature on page 14, "From Agri-Study to AgriOPPORTUNITIES," tells of the many ways open to you for gaining ogricultural training and reports successes of young men working in ag coreers. A listing of the pages pertaining to the eight coreer areas is below.

Agriculture Business	16	Research	26
Communications	18	Conservation	28
Education	21	Services	29
Industry	24	Farming and Ranching	31

Our Cover

If ever there was a poultry house that is being used to its fullest advantage, this is it.

Members of the Aqua Fria FFA of Avondale, Arizona, utilize this poultry unit for work experience and as a teaching lab. On top of that, though, they market the eggs to earn money for the chapter and raise all of the chickens they need for their parent-son banquet.

Taking their turn gathering eggs are James Farris, left, and Willard Tolman. Advisors of the Agua Fria Chapter are Mr. Paul Bell and Mr. Bill Morrison.

Photo by Guy Price

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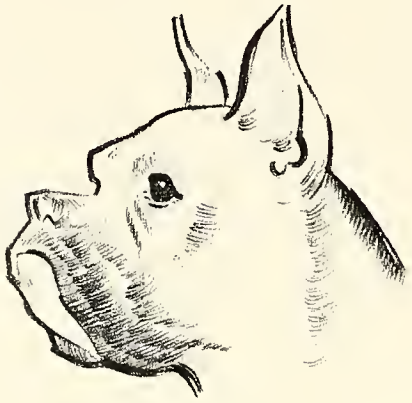

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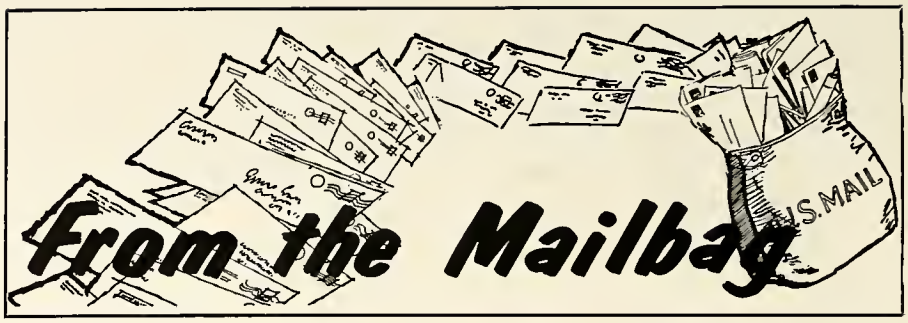

Cherokee, Alabama

I am writing to find out if you have anything I can do to make some money. If you do, let me know. If you can give me a good list of some things I can do to make money, I will be very delighted.

Terrelle Armstead

We have not compiled a list of ways to make money. One of our suggestions might be working for a farmer or agribusinessman after school or on Saturdays.

You might ask your chapter advisor, school counselor, or local banker if they know of any part time jobs. Ed.

Storrs, Connecticut

I find that one fault in our magazine is that the necessary qualifications for joining the National FFA Band and Chorus are not listed.

I am writing now so that by the 1970 convention, people in my chapter will be aware of how they can join them.

Pat Cawley

FFA members do not join the National FFA Band or Chorus.

Participants in these groups are selected from applications. Applications are submitted to the National Band and Chorus directors through state association offices. Your state association will be able to tell you how its nominations for band and chorus are selected. Ed.

Holdingford, Minnesota

Enclosed is my certificate for the four bulletins in the August-September issue of the magazine's "Free For You" column.

Is it possible to get additional copies for class use? If so, please explain how.

Dennis Jackson
Vo-Ag Instructor

The booklets offered in our "Free For You" column are selected from booklets submitted to us for review by commercial concerns. If accepted, we make arrangements with the company to fill individual requests which we receive from our readers.

If you would like a large quantity of any particular booklet, you might write directly to the company. Ed.

Kila, Montana

Please find enclosed a check for two binders for holding *The National FUTURE FARMER* magazine issues.

Our son, Doug, attended the first of the leadership conferences held in Washington, D.C. and Alexandria this past summer. He will never forget his experiences there. It is the greatest thing that has happened to him in FFA. I was very impressed with all he told us about the FFA Center, how the jackets are made, and how the magazine is printed.

I read his magazine from cover to cover, and I'm grateful for its inspiring wholesomeness.

Mrs. Frank Gamma

Virden, Illinois

I am preparing a slide presentation entitled, "Career in Agriculture," and I need pictures suitable for table top photography which shows FFA boys in action.

If cover sheets which have been used for *The National FUTURE FARMER* are available, I would like to have copies from previous issues.

James Corgan

Bedford, Iowa

I would like for you to send me the four free booklets which you offered in the August-September issue of magazine.

Our vocational agriculture instructor requires each student to teach a class about various topics and these should come in very handy for this purpose and many others.

I would also like to say that since I have been chapter president, (May 1969) I have gotten many good ideas from *The National FUTURE FARMER* magazine. I am planning to continue receiving it even after I get out of high school.

Thank you so very much.

Donald Cobeen

Brussels, Belgium

I am an FFA member now serving my church here in Belgium. I am a member of the Star Valley Chapter and former vice president of the Wyoming Association. For several months now, I have missed the magazine and I was wondering if I could receive it here in Brussels. Would you please send me an answer, and if it is possible, a price list.

Gregg Draney

The price for a foreign subscription is $1.00 per year, and you may subscribe for as many years as you like at the $1.00 rate. Ed.

Sault Sainte Marie, Michigan

The FFA can be very proud to have such members and officers as Arlen Bell of Sault Sainte Marie. I did not know this young man when I met him in a dentist office and he was so polite and friendly to my eight year old son. Later I found out he was an FFA member and knew my FFA son, Tom.

These teenagers should be admired and newsworthy. Thank you.

Mrs. K. R. Bennett

WHAT MAKES A FARM CHEMICAL A "BETTER BUY" THAN THE COMPETITION THESE DAYS?

Low cost and pretty good performance aren't enough anymore. Not for the farmers who compete under today's conditions—the kind of men who recognize cost-per-acre as a profit input—not just money spent.

Sure, they want a product that eliminates known threats to the crop at a cost that's reasonable.

But, to them, "better buy" means far more. Like a single pesticide that also works broad range. That meets changed conditions (like insect resistance). Offsets adverse weather. And helps "insure" against unforeseen loss. That's why Shell developed Azodrin® Insecticide for cotton.

Azodrin controls *every* major insect threat to the crop—including pink bollworm and mites. Stands up to resistance. "Insures" against damage by migrating insects. And outwits weather and sucking insects or mites through ConStemic control that works from inside, as well as outside the cotton plant.

Azodrin, like every one of the fast-growing line of products from Shell Chemical Company's Agricultural Chemicals Division, was researched by farm scientists who are just as concerned with "better buy" as our sales people and our customers.

Looking Ahead

Livestock

CATTLE VACCINE—A new vaccine for the control of costly respiratory diseases has been announced by Jensen-Salsbery Laboratories. The parainfluenza vaccine is sprayed on the walls of the nostrils with a standard syringe and a small plastic tube. According to company scientists, natural exposure to the vaccine, through the nostrils, causes antibodies to form in the respiratory tract. They neutralize the virus, thus preventing the parainfluenza disease.

BODY COUNTER—Animal husbandrymen at the University of Missouri have designed a whole body counter which can determine the amount of lean meat in a live animal. Because potassium is located primarily in muscle tissue, the amount of gamma rays given off by a potassium isotope is used to estimate the lean meat of an animal. For accurate readings, animals must be washed and be consuming primarily concentrates at the time of measurement because they are usually lower in potassium than roughages.

NEW BREEDS—Semen from a new breed of cattle called the Hays Converter, is now being introduced by the American Breeders Service, Inc. at De Forest, Wisconsin. The breed was developed by Senator Harry Hays, former Minister of Agriculture in Canada, from a Hereford, Holstein, and Brown Swiss cross. Semen from another breed, the Murray Grey, just introduced from Australia can be obtained from Select Sires of Columbus, Ohio. Characteristics of the breed include dark pigmented eyes and meat with a texture similar to Angus.

Crops

PEANUT TREATMENT—By changing the time of treatment for the southern corn rootworm, peanut growers can save almost half of the present control costs. According to a North Carolina State University entomologist, applying diazinon at a lower rate during the egg laying stage, rather than large doses in later stages of growth, can save growers at least $2.00 per acre and give better results.

WHEAT PROGRAM—The 1970 wheat program will try to strengthen the farm price of wheat and continue the effort to bring wheat production in line with needs. The voluntary program calls for a 12 percent reduction in wheat acreage allotment and continues payments for diverting wheat acreage below the farm allotment. Average price-support loan level will remain at $1.25 per bushel. You are advised to check with your county Agricultural Stabilization and Conservation office for the various options in the program.

SOYBEAN NODULES—A tall soybean plant with a large number of nodules does not mean that a plant will fix a large amount of nitrogen. Rather, scientists at the University of Wisconsin say that nitrogen content of the plant is most related to the weight of the nodules. And this means the greater the weight of the nodules, the more the soybean yield will be.

Buildings

IRRADIATED CONCRETE—Plastics can now be teamed to make polymer-concrete, a combination which is 2½ times stronger than steel fiber reinforced concrete, say Agricultural Research Service (ARS) engineers. In addition the material can support five times the weight of regular non-reinforced concrete ordinarily used in foundations and walls. Polymerized concrete is made by soaking cured concrete in monomer (single molecule), wrapping the material in a plastic film, and by irradiating it until it is converted to polymer (combined molecules).

SUSPENSION FENCE—A new type of farm fencing, called a suspension fence, can reduce cattle fencing costs by 40 to 60 percent. As explained by a farm structures specialist at Virginia Tech, the number of posts is reduced by about 80 percent as compared to regular fencing. Posts are set about 100 feet apart and four strands of barbed wire are used. Wire stays keep the strands at about 15 inches apart. Though good for pasturing cattle, the fence is not recommended along highways because cattle can crowd it over.

Land

SOIL SURVEYS—Future soil surveys will be taken with thermal infrared sensors. Using the application of remote sensing, called infrared photography, differences in texture and moisture of soil surfaces can be detected. Already infrared imagery can detect differences in soil surface temperatures. In tests by the ARS, the University of Michigan, and the National Aeronautics and Space Administration, scientists use scanners to convert the infrared films to line graphs for analysis. Other uses for infrared photography were mentioned in the article "Agriculture Via Space" of the October-November, 1969 issue.

Management

RISING COSTS—Farmers' insurance payments for both farm and family purposes will continue to rise in 1970, and so will the interest rates that farmers pay. Greater protection and higher premiums for insurance packages are blamed for a possible 5 percent increase. Farmers also will probably pay 8 to 10 percent for borrowed money in 1970, compared to the 6 to 7½ percent in the last few years. This means a 15 to 20 percent hike in the costs of borrowed money.

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Shifts in farm arrangements

About the only angle of farming that hasn't changed is farm arrangements. But, as this article points out, that's becoming history, too! ***By Ron Miller***

FARMING changes daily. And with the changes caused by technology and economics, come sharp shifts in the patterns of getting started in farming.

Farms are getting larger, capital requirements are growing, and farm numbers are decreasing. Likewise, as farmers specialize, they depend more on purchased inputs and cash markets.

Ways of managing farm business differ greatly from the past. Farmers now keep detailed production and finance records, as well as tax records. Furthermore, figuring the returns of a farm investment is in the process of change right now. Employing the outdated method of calculating a farm's rate of return on the basis of the original cost of the land to the owner is impractical. With farmers renting more land than they generally own, competitive operators use the cost of the land to a potential buyer to get a realistic return on investment figure.

Changes in land availability has also shifted. There is now very little suitable government land available for farming. Thus, most farmland must come from farms that are vacated by previous operators.

To cope with the paradox of technological progress in agriculture, young farmers need modern ways of breaking the entry barriers into farming. To meet today's farming opportunities they need business arrangements that will provide them with the opportunity of acquiring a capital base. Here are some of the shifts that are occurring in farming arrangements.

The most significant shift is in the increased proportion of farmers who start under some form of father-son or other family arrangement. Of the 170,000 farms being vacated each year, about one-fifth, or some 34,000 farms are acquired by sons of the farm owner. With the economic situation as it is, shifting to family partnerships or corporations provides some advantages and is being more widely used.

One reason that partnerships and corporations occur more frequently is because young men need more capital to establish themselves as owner-operators. On the other side of the ledger, farmer's sons have more opportunity for off-farm jobs than ever before. Thereby, farmer's sons have stronger bargaining positions in working out arrangements with their fathers. Thus, fathers and sons nowadays generally have about equal objectives for working out a successful farming agreement.

Another group of beginning farmers are buying some land and renting the rest. This part ownership arrangement has even become a common practice among established farm operators.

In this arrangement a starting farmer usually owns a small portion of land with the necessary buildings for handling the additional land he rents. In this way a young man can begin with limited capital while farming larger and more efficient production units.

Tim Allman and his father, of Jane Lew, West Virginia, manage their farm with a flexible, working arrangement.

Another trend, that of renting all land needed for capital accumulation, gains more popularity as investments for farming increase. Because of the low risk and small capital requirements, a tenant-operator can break into farming on a large scale quite rapidly.

Renting land today requires a lease that can accommodate and be adjusted to the changes in agriculture. In addition, a modern renting agreement must provide a workable plan for adapting to the changing capital positions of the tenant and the landowner, as well as a way of sharing income.

Therefore, beginning farmers now lease according to 60-40, 40-60, 30-70, or some other systems, besides the conventional 50-50 basis. To accomplish forward-looking farming objectives, renting agreements must allow for capital accumulations by the tenant while granting income flexibility to the landowner. Thus, ownership changes can occur through capital gain, cash payments, and/or depreciation costs.

There are also many in-between situations. However, they all need to be planned with a futuristic approach to modern farming in mind. Making the right arrangement when you begin farming can determine just how successful you become in breaking the entry barriers of farming.

National FFA Convention

KANSAS CITY, MISSOURI, OCTOBER 14-17, 1969

Left to right are Harry Birdwell, Dennis Pharris, Donald Shinn, David Dietz, Steven Zumbach, and C. W. St. John.

National FFA Officers Chosen

HARRY W. Birdwell of Fletcher, Oklahoma, was elected national FFA president and Dennis J. Pharris of Hillsboro, Texas, was elected national FFA secretary. Elected as vice presidents were Steven E. Zumbach, Manchaster, Iowa, for the Central Region; Donald K. Shinn, Columbus, New Jersey, for the North Atlantic Region; David H. Dietz, Canby, Oregon, for the Pacific Region; and C. W. St. John, Redfield, Arkansas, for the Southern Region.

Harry Birdwell, the FFA president, is currently attending Oklahoma State University where he is majoring in radio and TV broadcasting. He is now a Junior, and has been on the Dean's honor roll every semester. As a leader, Harry served as president and vice president of his state association and won three state FFA speaking contests. He also served as junior and senior class president while in high school. Harry's farming program consists of the 80-

See **OFFICERS** Page 38

Watching From The Stands

By Ron Miller

The Forty-second National FFA Convention, like an exciting football game, attracts spectators and players from most anywhere. In this case the spectators are advisors, parents, school administrators, businessmen, and guests. The players are the Future Farmers of America in the blue and gold jackets.

In a football game the spectators outnumber the players. At the National Convention, however, the players outnumber the spectators. This year over 10,000 FFA members attended the National Convention, while over 2,000 spectators attended. The All-American players were the six national officers and 113 delegates from 49 states and Puerto Rico.

A stimulating vespers program kicked-off the Forty-second National Convention. At vespers Kirby Brumfield, a TV announcer and photographer from Oregon, delivered an inspiring message. Following President Jeff Hanlon's call to order, Kenny McMillan, former national FFA president and now assistant to the president of the Illinois Agricultural Association, gave the opening address.

Speakers at the sessions included the Honorable Clifford Hardin, Secretary of Agriculture, who greeted and challenged FFA members to meet agricultural demands of the future. Another was Don Greve, builder of a carpet mill which hires untrained Indians and recipient of a salute by *Reader's Digest* as one of "America's Top 10 Outstanding Young Men." Arthur Godfrey, renowned radio and television celebrity, congratulated FFA youth for their progress and presented them with an even greater challenge, that of air pollution control.

The proficiency winners were named, 480 members received the American Farmer degree, and the Stars were honored in appropriate ceremonies. In other sessions, 25 vocational ag teachers and 35 men in government, education, business, and industry received the Honorary American Farmer degree. Distinguished Service awards were presented to 20 persons and nearly 500 FFA Foundation sponsors were recognized.

As part of the National Chapter award program 72 local chapters received the gold emblem while 46 chapters won the silver emblem and 28 the bronze emblem. Twenty-eight local FFA chapters won a gold emblem in the National Safety program, 21 the silver award, and 20 the bronze award.

The FFA Convention's rooting section was led by a 103-member chorus and a 121-piece band. The band was directed by Roger Heath, assistant director of Purdue University Bands and the choir director was M. D. Meyers of Lafayette, Indiana. They and their "mail order" members put on a splendid musical show. Judging contestants also earned recognition for making many good judgement calls in the various contests.

Throughout the National FFA Convention outstanding plays were made. But, in the end, as in football, it was how the blue and gold team played the game that brought pride to the FFA.

Speaking Winners

EDWARD B. Hatchett, Jr. of Glasgow, Kentucky, won first place in the FFA National Public Speaking Contest. He delivered a speech entitled "Rural America—Our Hope For The Future," and was presented a $300 FFA Foundation cash award for his winning effort.

Edward, a vo-ag graduate of Hiseville High School, is now enrolled as a freshman in Centre College of Kentucky where he is majoring in political science.

Other national contestants were Chris Johns, of Central Point, Oregon, who was pre-

See **SPEAKERS** Page 39

Oscar Manbeck

Ken Dunagan

FFA Stars Named

STAR Farmer of America, the FFA's top award for a young farmer was presented to Oscar J. Manbeck of Bethel, Pennsylvania, in an impressive ceremony. Earlier, Ken Dunagan of Wilcox, Arizona, became the first FFA member to be named Star Agri-Businessman of America in a similar ceremony. Oscar, a dairy farmer and a member of Conrad Weiser Chapter, and Ken, who operates a custom harvesting, spraying, and feedlot operation in partnership with his father, were each presented with $1,000 from the FFA Foundation.

Sharing the spotlight were three other regional Star American Farmers who received checks of $500 each from the FFA Foundation. They are: Walter Terrell Hudson, Unadilla, Georgia; John David Prahl, Neoga, Illinois; and Gary A. Wollweber, Edwall, Washington, member of the Reardan FFA.

Three other FFA members were named Regional Star Agri-Businessmen and also received checks of $500 each from the FFA Foundation. They are: Charles S. Postles, Jr., Milford, Delaware, member of the Misipillion FFA; Roger Lee Phelps, Marysville, Ohio; and Charlie Seidel, Jr., New Braunfels, Texas.

Selection of the Star Farmer of America is based on achievement in farming and leadership in FFA activities. When selecting the Star Agri-Businessman of America, achievement in agribusiness is stressed. The Regional Star Farmers and Star Agri-Businessmen were selected from the 480 members who, earlier in the convention, received the American Farmer degree, the FFA's highest degree. Their stories were in the October-November, 1969 issue.

Girls Admitted

IN a spirited business meeting led by President Jeff Hanlon, the 113 delegates to the National FFA Convention voted to admit girls as members of the FFA. The issue passed by two votes over the required two-thirds majority, but was reconsidered and debated several times.

Another constitutional amendment regarding the changing of the name from Future Farmers of America to "FFA" failed, as did the amendment to increase the number of national vice presidents. The delegates voted against having an immediate past national officer serve as chairman of the nominating committee. They also failed to remove the limit on State Farmer degree candidates which is restricted to 2 percent of a state's membership.

The amendment subdividing FFA degrees into Future Farmer degrees and Agri-Business degrees was referred to the Board of Directors and the Board of National Officers for further study. The amendment to the bylaws concerning the establishment of five regions received similar action. The delegates voted that the Center Development Committee complete its study and to accept the future recommendations of the Board of Directors on Center Development.

International Guests

This year, for the first time, members of the Future Farmers of Panama (FFP) attended the National FFA Convention. They are: front row, left, Miguel A. Diaz; Lucas Gomez, national FFP president; Juan Francisco Giono; Alvaro Chavez; back row, left, Professor Jose A. Vasquez, a chapter advisor; Luis C. Tejeiro, national FFP treasurer; Juan Lee; Daniel Nieto, national FFP secretary; and Professor Joseph Rolling, chapter advisor and leader of the Panamanian group.

These FFP members represent every chapter in Panama. The FFP consists of seven chapters and some 500 members, with each chapter advisor serving on the Committee of National Advisors for the FFP. Besides other qualifications, these representatives needed to have at least one more year left in the FFP in which to apply what they learned at the National FFA Convention. Their trip was sponsored by the Panamanian Department of Agriculture and the Agency of International Development of the U. S. State Department.

Other countries represented at the FFA Convention include Brazil, South Korea, Taiwan, Thailand, South Viet Nam, Malaysia, Philippines, New Zealand, Ethiopia, Netherlands, England, and Scotland.

AGRICULTURAL BUSINESS

COMMUNICATIONS

EDUCATION

INDUSTRY

RESEARCH

CONSERVATION

SERVICES

FARMING AND RANCHING

AgriOPPORTUNITIES

Geigy men were in the same boat you're in now.

You're making plans. Going to stay in agriculture, somehow. But not in the farming end of it.

You've heard of agri-business, and you know something about the agricultural chemical industry. But is it for you?

A lot of our men were in the same boat. It took them a while to decide. But when they got enough information, the pieces really fell into place.

Like the way Geigy men work with farmers and dealers.

Not as peddlers trying to snow customers. But as professional advisers, working to help them get a good return on their investment.

It's just good business. Good for farmers. Good for Geigy. Good for Geigy men.

And now what's happened is that our men . . . who were once faced with the same decision you're up against . . . need men like you to help farmers keep pace with the fast-changing technology of agricultural chemicals.

But you'll want more information on Geigy and what Geigy men do.

Just write Dennis Requist.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York 10502. ***Geigy***

AgriOPPORTUNITIES

Published by The National FUTURE FARMER

From Agri-Study To AgriOPPORTUNITIES	14
Business Careers Hold High Promise	16
Bright Future For Communicators	18
Jobs Awaiting in Education	21
Industry's Ever-Changing Opportunities	24
A Wide-Spread Demand Exists In Basic Research	26
Conservation's Big Job Picture	28
New Careers In Ag-Services	29
Farm Ownership The Biggest Challenge	31

Agriculture Needs You

THE agricultural industry is big and complex. It is often described as America's largest and most basic industry. Frequent comparisons are made with other industries such as; "Employs more workers than the automobile industry, the steel industry, and transportation and public utilities combined," or "Assets equal about two-thirds of the value of current assets of all U.S. corporations," and similar descriptions.

However you describe it, agriculture is big. In addition to farmers, it includes the farm suppliers who manufacture and sell machinery, fertilizers, chemicals and feed. It includes those who provide credit, insurance, and technical services. And it includes those who are engaged in the marketing, storage, processing, transportation, and distribution of farm products.

Because it is big and complex, agriculture offers many opportunities for employment in a wide variety of skills. It has been reported that three out of ten jobs in private employment are related to agriculture; that eight million persons have jobs in storing, transporting, processing, and merchandising the products of agriculture; and that six million have the job of providing the supplies farmers use.

You can be part of this exciting and thriving industry. Consider your interests, abilities, and the opportunities you will have for further education. Then don't be afraid to ask questions and seek the advice of others. In most cases they will be pleased that you asked and most eager to help. Talk with such people as your vocational agriculture teacher, guidance counselor, principal, superintendent, or someone working in your field of interest. You may find just the career you are seeking—in agriculture. *(Wilson Carnes, Editor)*

Reprints of AgriOPPORTUNITIES are available from *The National FUTURE FARMER*, P.O. Box 15130, Alexandria, Virginia 22309 at: 50 cents each for 1-10 copies; 35 cents each for 11-100 copies; 20 cents each for over 100 copies.

From Agri-Study To AgriOPPORTUNITIES

AGRICULTURE has been described as an industry in transition and this is likewise true of vocational agriculture across the nation. Therefore, you may be initially qualified for some jobs in agriculture after studying vocational agriculture. This is particularly true if you specialized in a particular occupational area.

For other jobs, you may need further study at one of the vocational-technical schools or two year colleges. Or, you may choose to seek a position at the professional level after graduation from a four-year college or graduate study.

Since other articles in AgriOPPORTUNITIES center around the opportunities for college graduates, this article will concentrate on the career opportunities for high school graduates.

Vo-Ag Expanded

In recent years, the vocational agriculture program in some high schools has been expanded to include instruction in off-farm agricultural occupations. Whereas vo-ag once trained only those who planned to farm, it now may offer instruction for any job requiring knowledge and skills in agriculture. While production agriculture is the course taught by the majority of vocational agriculture departments, new programs are being added where a need exists.

Eight major occupational fields in agriculture have been identified by vocational educators. And there are many individual jobs that can be identified within each field. Typically, a school may offer any of these eight as a specialized, individual course, or a combination may be offered to a single class.

Here are the eight areas from which you may choose a career in agriculture and a brief description of each.

Agricultural Production—includes animal science, plant science, and management. Students study the production of livestock, field crops, fruits, and vegetables on commercial or part-time farms.

Agricultural Supplies—marketing and merchandising agricultural supplies including chemicals, livestock feed, seeds, fertilizer, equipment, and services to those engaged in agricultural production.

Agricultural Mechanics—the operation, marketing, repair, and servicing of agricultural power machinery and related equipment.

Agricultural Products—the principles and operations involved in the preparation of agricultural products for use or sale. Includes processing, marketing, inspection, and services.

Ornamental Horticulture—concerned with production, management, sales, and services in greenhouses, nurseries, and garden centers. Also deals with the establishment and maintenance of turf and landscape areas and includes floriculture, landscaping, and turf management.

Agricultural Resources—the principles and processes involved in the conservation and improvement of agricultural resources such as forests and other natural areas, fish and wildlife, soil, water, and air, and with the establishment, management, and operation of recreational facilities.

Forestry—the production, processing, marketing, and servicing of forestry products. This would include management of trees, protection of forests, logging, wood utilization, recreation, and special products.

Pre-Professional—concerned with preparing students for further study for entry into the professional field of agriculture.

Programs in Action

Many of these vocational agriculture programs are being taught in some of our major cities. The Walter Biddle Saul High School of Agriculture and Horticulture in Philadelphia is an example.

Nestled in West Philadelphia on a 78-acre farm, the school has 460 students, all with urban backgrounds. These students can choose from a variety of courses such as agricultural production, horticulture, turf technology, meat cutting, agricultural machinery sales and service, and an animal technician course. The school dropped its agricultural business course, but last fall added agricultural resources management, patterned after a course at Penn State in conservation, forests, and recreation parks management. Mr. Donald A. Chattin, the school's coordinator, explains that Philadelphia has one of the largest parks systems of any city, so the course has good possibilities. "Likewise the horticulture course has been adjusted to provide for two courses; one in landscape horticulture and the other in floriculture, including retail flower shop management," he said.

Students can choose the academic course and prepare for college, or they can choose the vocational-technical course and develop a marketable skill. Mr. Chattin gives an example; "We have 178 golf courses in the Philadelphia area and one of our courses is turf technology, so we have a tremendous demand from the turf industry for our graduates."

Seniors work in the industry for which they are being trained for the last two periods of each school day. The dropout rate, according to Mr. Chattin, is about one percent. And to date about 55 percent of the students continue their education after high school.

In Cleveland, ten high schools are offering courses in vocational education in agriculture with a total enrollment of 423 students. They are studying courses leading to employment as florists, nurserymen, greenhouse operators, agricultural inspectors, agricultural sales and service employees, and golf course superintendents. The students are engaged in part-time work experience programs, or gain their occupational experience in school-owned greenhouses, nurseries, and similar agricultural laboratories. Last year approximately 80 percent of the graduates were employed in the agricultural industry.

The Delta High School at Muncie, Indiana, offers us an example where rural and urban areas are combined. According to instructor Fred Glancy, Jr. they offer approximately 21 classes of vocational agriculture, mostly semester or yearly courses. They range from the sales and service area to the basic agriculture courses of animal science, plant science, and soil science; from farm accounting to the areas of power, including small engines, piston engines, and diesel engines. The horticulture area includes nursery and greenhouse management, floriculture, floral arranging, and golf course management.

A student goes on the job during his

senior year and spends a half day in school and a half day at work. Mr. Glancy told us, "We have young men at elevators, feed and seed stores, fertilizer companies, floral shops, in nurseries, and with implement dealers—both for repair and the set-up of new machinery. It is not unusual to have three or four students working in one place but at different training jobs."

The people at the training centers are well pleased with the work of the students. In fact, Mr. Glancy said, "I haven't had a student that hasn't been offered a job at the place where he is being trained."

Delta High has about 250 students in vocational agriculture but turned away about 80 last fall because of lack of room. A new building program will help solve this problem. In addition to Mr. Glancy, there are three other vocational agriculture teachers and a former ag teacher working in the area of vocational guidance.

What do you do if your school is not big enough to offer such a varied program? Perhaps Mr. Glancy provided part of the answer when he said, "Production agriculture is the basis for the entire program." You may be able to pursue one of the above courses on an individual basis under the supervision of your vocational agriculture instructor, or you may need to get a good foundation in production agriculture and follow up with a specialized course at one of the area vocational-technical schools.

Individual Successes

New York reports that opportunities open to graduates of high school agriculture programs appear to be on the increase in that state. This is supported by the letters received from farm and off-farm agricultural trade organizations indicating a definite need for persons trained in the agricultural specialties.

This was indicated by a recent study conducted by Arthur L. Berkey and others at Cornell University. According to this study, only one percent of all 1968 graduates of occupational agricultural programs in New York were unemployed. Forty-one percent of the agricultural graduates of 1968 moved directly into full-time employment from high school. The remaining 58 percent of the agricultural graduates were involved in military service (27 percent) and college education (31 percent).

Here are examples of young men in New York who found their career in agriculture through vocational agriculture.

Orlin Kittle is a 1969 graduate of the Griffith Institute and Central School, at Springville. He majored in agricultural business and during his training period, attended school in the morning and received on-the-job work experience in the afternoons at Concord Agway.

His major responsibilities for the first few months were handling bag feed, sweeping floors, stocking store shelves, and riding as a trucker assistant. After graduation, Orlin attended the company's truck school in Syracuse. Now he has full-time responsibility of all liquid nitrogen and atrazine calibrations and applications, and drives a bulk feed truck.

Dick Cyzeski, age 18, graduated in June from Oneonta High School with a two year major in conservation obtained at the Ostego Area Occupational Center. Forest management is Dick's main interest. He already has two privately owned woodlots to manage, plus several others as soon as he is ready. He hopes to own a logging and pulp cutting business as soon as he has acquired sufficient capital to purchase equipment. At present he has a pulp contract.

Richard W. Englebrecht, a former FFA Star Farmer of America, graduated from Madison Central High School, in 1963, after majoring in farm production and management. In 1965, he purchased a 252-acre farm with a 39 head cow herd of high quality registered Holsteins.

Today Richard has expanded his farm operation to 400 tillable acres and is milking 80 cows. In addition to raising his own feed, he is involved in cash cropping corn. Although he has a full-time job operating his farm, Richard has found time to serve as a member of the board of education of the local central school and is serving on the New York State Selective Service Youth Committee. The one factor presently holding back further expansion of Dick's business is the lack of persons qualified to assume the position of farm manager.

Terry Yehl became a student of ornamental horticulture at North Rockland High School, Harverstraw, after moving from a farm in western New York. By the time he graduated, Terry had done considerable lawn grading, seeding and planting, and had learned to operate a bulldozer, backhoe, front buckets, York rakes, and a commercial seeder. During his senior year, he went to work for Arthur Holdt Landscape Contractors, Inc., and worked full time until he entered the Marines. The company intends to employ Terry again when he completes his time in service.

Orlin Kittle is using his training to be a success in agricultural business.

You can find a career in agriculture as these young men have done. No doubt, there are other examples in your own state, and perhaps your area.

Want a career in agriculture? There is one for you and right now is the time to start planning an educational program that will prepare you for it.

Since completing a two-year course in conservation, Dick Cyzeski has begun to manage forests and hopes to someday own a logging and wood pulp operation.

AGRICULTURAL BUSINESS

Business Careers Hold High Promise

FOR a number of years, the job opportunities in the field of agricultural business for university and college trained men have been excellent. The demand for good men—and even so-so ones—outstrips the supply by a big margin. It has done so for some time and there is every indication the demand will continue to be strong in the years immediately ahead. Technical opportunities are also on the rise.

Across the country, salaries paid to beginners in business are very good—in the range of $7,500 to $9,000—compared to those of a few years back and compared to those which experienced employees in the same organizations are getting. In fact, beginning salaries are now exerting an upward push on salary scales as a whole, whereas formerly top salaries of executives constituted a pull on levels below.

Students are also interested in business. At the University of Wisconsin, 22 percent of our graduates took employment with business and industry firms in the last four years. If this 22 percent is added to an average of 29 percent that became farm partners, herdsmen and farm managers, engineers, and researchers, then it is apparent that one-half of the ag grads during these past four years were interested in business-oriented positions upon graduation.

This interest from a job standpoint has not been misplaced as students find all types of businesses seeking their talents. This is born out by the fact that between 30 and 40 percent of the employed population of this country derives its livelihood from employment in agriculture.

Agricultural business, like farming, has been quickened by new technology, by mechanization and automation, by new market structures, and by specialized operations. Therefore, it needs creative thinking and a steady flow of new ideas to meet the challanges before it. And what better source is there for these innovations than the young men with a background in farming topped off by a sound educational program of several years? As teammates, experience and educational training go a long way toward success for the individual that has them.

Skilled electricians are necessary for supplying power to modern agriculture.
USDA Photo

One-Stop Farm Trading Centers

That the future for agriculture-related businesses holds high promises, as predicted by economists and others, is shown in the interest that Litton Industries and National Farm Stores, Inc. have in building a number of one-stop agricultural centers designed to provide all the needs of farmers. It is reported that the tenants in these complexes, to be built on 40-acre tracts, will include just about every type of firm or business serving farmers—farm supply stores and repair shops, automobile and truck dealerships, lumber yards, L.P. gas installations, retail and bulk gasoline stations, farm machinery dealers, grain, feed, and seed stores, and numerous offices for such agencies as farm management firms, electronic farm-data processing services, tax consultants, farm finance and loan companies, insurance agencies, farm real estate agents, plus such other specialists as agronomists, veterinarians, journalists, and technicians.

It is not unthinkable that a blacksmith shop might also be included in one or more of the 20 centers planned for construction in the Midwest, in view of the renewed interest in horses chiefly by urbanites. This proposal is mentioned to show that firms that put their hard dollars in a venture of this kind—it is reported that one retail complex alone will cost three million dollars to build—evidently foresee a bright future for agriculture and not a declining one. This speaks well for the man thinking about going farming on a modern commercial basis or supplying farmers with their many needs.

Kinds of Business Positions

What positions are there for the young man looking for a business career upon graduation in agriculture-related fields? The list is a long one—almost like starting at the beginning of the alphabet and going to its end.

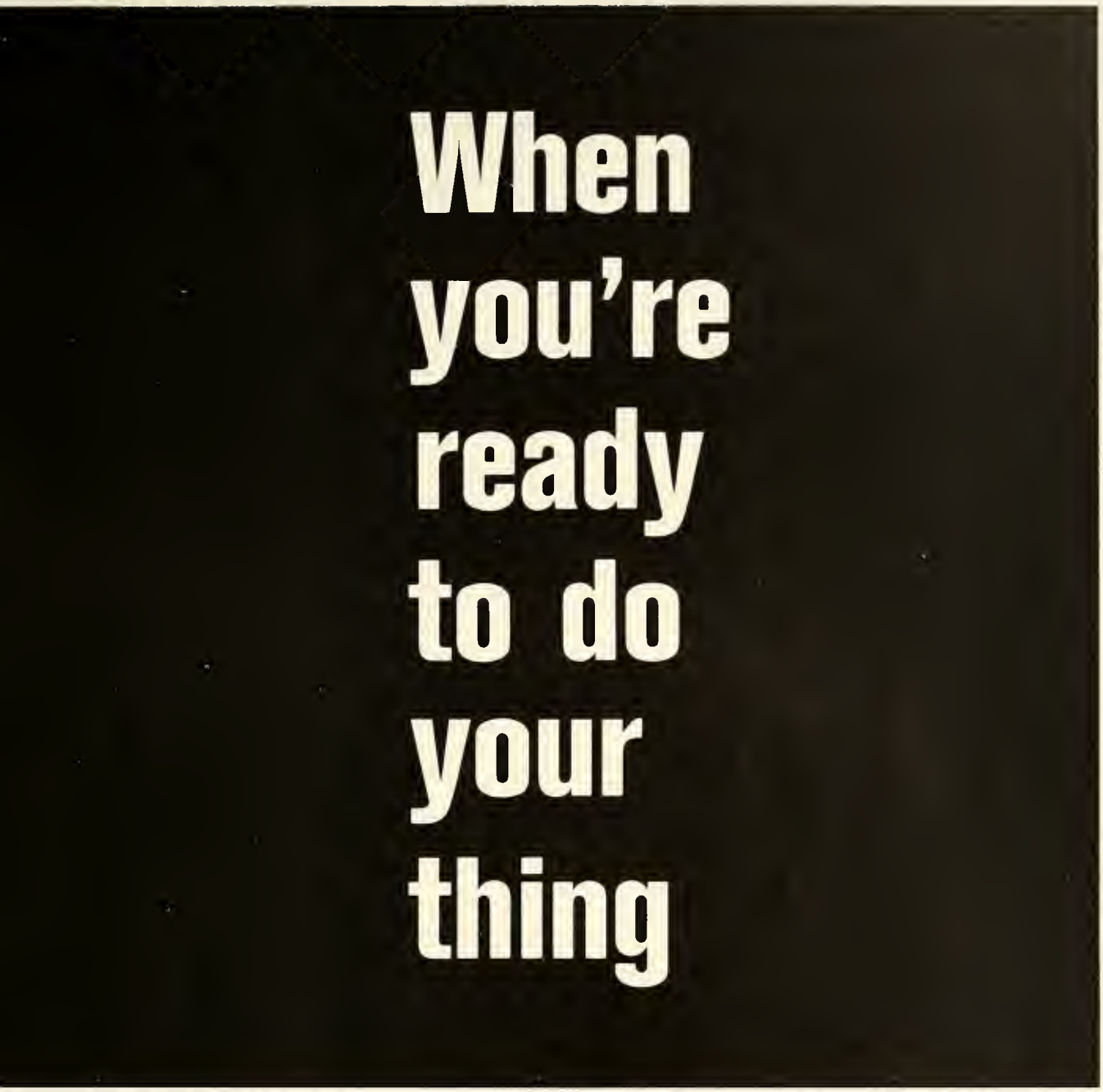
There are opportunities in the fields of accounting, advertising, banking, computer operations, credit, exporting, farm managing, finance, importing, insurance, merchandising, personnel work, price analysis and forecasting, procurement, retailing, sales and promotions, statistics, and wholesaling. There is work with private, cooperative, and governmental agencies; with small, medium size, and large businesses; and with domestic and overseas companies.

Positions might be mostly out-of-doors or in-doors; on the road (traveling) or at the company's head office; and in places where you might be on your "own" or in an office with many persons under the boss' direct observation. Of course, not all of these positions, locations of employment, and types of firms are open for every student—but the choices are numerous, nevertheless.

The following listing of the areas, the types of firms, and kinds of commodities and services in which job opportunities appear indicates the diversity of employment in agriculture-related businesses.

Sales, Advertising, and Promotions—marketing all types of commodities at

(Continued on Page 20)



. . . there's a good chance you'll bump into us doing *ours*.

More than likely, the thing you're aiming at is farming or ranching—or working with farmers and ranchers, perhaps in an agribusiness.

Whatever way, MoorMan's could be a part of your future.

If you plan to raise livestock anywhere in the big chunk of country we serve—the Corn Belt, South and West—it's almost certain you'll be getting acquainted with a local MoorMan Man.

You'll find that he—like about 2,200 others—spends full time calling direct on livestock raisers. There he sees their animals and their operations. There he recommends the high-quality Min-trates®, Premix-trates® and other MoorMan Products that will help stockmen get good returns over feed cost. And there he relates his company's experience and know-how to individual feeding conditions and needs.

Or suppose you're planning a career in agribusiness. The time may come when you'll want to take a long, hard look at a company with a long-time record of sound, steady growth. At a people-oriented organization which likes to see its people grow, too. At a company which strongly believes in the proposition that quality products and on-the-spot service are the best way to get economical livestock results and the surest way to success.

And that's MoorMan's thing.

MoorMan's®

Moorman Mfg. Co., Quincy, Illinois

Bright Future For Communicators

THE job prospects in agricultural communications remains the same as it has for the past five years—bright for the prospective employee, somewhat gloomy for the employer.

While demand continues to increase, the supply of talent remains static.

At Iowa State University the number of ag journalists has remained stable—from 25-35—for several years while total journalism enrollment has doubled. Meanwhile, about 40 percent of the job offers received by the journalism department continue to be in ag communications.

In the main, these jobs offer higher salaries and better potential for advancement than do opportunities in most other journalistic pursuits.

Reports from directors of ag journalism programs at the University of Illinois, University of Missouri, and University of Wisconsin spell out a situation similar to that of Iowa State.

The old hands in journalism departments, generally agree that the ag journalist goes further, gets there faster, and often does it with less competition. Because the demand for them is so great and the supply so slim, they often step into jobs of considerable responsibility and tend to move up more rapidly than their peers.

What types of work are open to the ag communicator? A recent survey of about 650 graduates representing all specialties of the Iowa State journalism department found that 135 held the following ag communications positions:

Editorial work, farm magazines..28

Editorial work, governmental agencies, extension.....26

Advertising, public relations, promotion firms.....21

Publicity, public relations for farm organizations and societies.....18

Agricultural consulting firms.....15

Advertising agencies.....14

Journalism education.....4

Advertising, farm magazines.....3

Farm broadcasting.....3

Farm writing, newspapers.....2

Agricultural photography.....1

Farm magazines continue to lead as the major employer of ag journalists and the demand from them has been relatively stable over the years. The demands for journalists as specialized farm publications have increased over that of general farm magazines.

In addition, a sharp increase has developed in public information openings with federal and state agencies. The biggest employer in this area appears to be the Cooperative Extension Service. At any one time, there will be a dozen excellent openings for extension writers, editors, and broadcasters.

The United States Department of Agriculture and it divisions, such as the Soil Conservation Service and the overseas economic development agencies also employ large numbers of print and broadcast specialists. The United States Information Agency actively recruits journalists, as do such government-associated organizations like the Rural Electrification Council. Also most state game and fish, forestry, and agriculture departments have public information staffs.

Farm machinery manufacturers, feed and seed companies, agri-chemical firms, and meat packers are heavy employers of ag journalists. Most of the openings with these firms are in the advertising and public relations departments.

In recent years, farm organizations and agricultural societies have begun to hire impressive numbers of journalists. Such organizations as the National Pork Producers, the American Soybean Association, the Farm Bureau and the National Farmers Organization operate sophisticated public relations programs and need competent ag communicators to keep them going.

Advertising agencies with agricultural accounts are constantly scouting journalism departments for those rare persons whose talents and interests encompass both agriculture and advertising. Adding to the demand for this type of talent are the recently emerging ag communications consulting firms. These firms often handle chores in advertising, public relations, market research, and sales promotion.

Although ag journalists receive salaries somewhat higher than other journalism graduates, the starting pay in the communications field is not high when compared to that received by engineers, chemists, and the like. However, long-term salaries indicate that journalism grads in all fields usually advance more rapidly than grads in most other disciplines and tend to narrow or remove the pay differential in about five years.

Today's ag journalism graduate can expect to receive $7,000-$7,500 a year on his first job. The bottom of the pay scale is about $6,000. At the other extreme, an exceptional student who lands a top job in advertising or public relations may get as much as $9,000.

Every year, recent grads who are employed in the field come back to campus to tell their old profs that ag communications is a rewarding, well-paying profession suffering from a talent shortage. "Nobody told us that as students." The profs say that they do present the message, "but nobody is listening."

Perhaps you have gotten the message. If so, would you please pass it along to your friends. *(By William Kunerth, Associate Professor, Iowa State University)*

In addition to writing, ag reporters interview farmers and ag specialists.
Kent Feeds Photo

Ag journalists must prepare TV and radio material before "airing" ag news.
USDA Photo

The death of the plow.

There were some raised eyebrows around here, a year or so ago, when a few of our people began shooting off skyrockets about what no tillage meant for PARAQUAT, our herbicide-desiccant. ORTHO people have some 60 years of experience working with new products and new farm practices. Experience that has taught us to keep our cool about how fast a new market can develop.

We knew that PARAQUAT was a remarkable material. But what was this no tillage business? Now, more and more reports coming in indicate that this could be one of the biggest things that ever happened to ORTHO. And to ORTHO dealers (always important to any ORTHO consideration).

Everybody's known for a long time that there are lots of benefits to reduced cultivation. Less erosion. More moisture for the crop. No plow-sole condition. Lower operating costs.

So, several years ago in several states, agronomists and farmers started reaching for the ultimate — planting corn into sod or stubble that had been killed by herbicides. They showed it could be done.

Biggest problem, they found, was in getting a fast, initial kill of weeds. Then our Tech Service people offered PARAQUAT as an experimental material. Sensible thought. Nothing quite like PARAQUAT for fast contact action on both grasses and broad-leafed weeds. Before long we were getting those glowing reports on how PARAQUAT was making no tillage more effective and cheaper. When our cropland registration finally came through last spring, lots of farmers already were asking for it.

No tillage (that's what we call it) is sweeping through the Middle Atlantic states and is getting a firm foothold in the eastern part of the Corn Belt. Lots more farms, though, where it can be used profitably, and more crops. Soybeans are already getting a lot of play. Cotton isn't far away.

No tillage with PARAQUAT. We see lots of action ahead. And that's not the only market for this fine product. Great for tree and vine crops. Post-emergence control of grassy weeds in potatoes. Harvest aid chemical for cotton and spuds. Lots of industrial and non-crop farm uses. So many possibilities that some of our marketing people break out in goosebumps when they think about the potential for PARAQUAT.

If you aren't in on the action already, you should be. Talk to the ORTHO man. He'll tell you how you can sell PARAQUAT.

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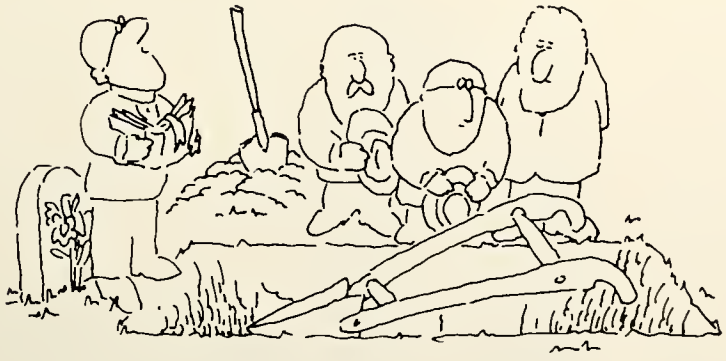


TM'S:—ORTHO, CHEVRON DESIGN, HELPING THE WORLD GROW BETTER—REG. U.S. PAT. OFF.

ON ALL CHEMICALS READ CAUTIONS, WARNINGS AND DIRECTIONS BEFORE USE.

AGRICULTURAL BUSINESS

(Continued from Page 16)

retail and wholesale levels with private and cooperative companies, commission firms, auction companies, brokerage houses, importers and exporters, and with cash as well at futures traders. Salesmen appear to be most in demand, however.

Procurements—purchasing raw products for processing, operating buying stations for livestock, fruits and vegetables, purchasing agent for supplies, and buying for resale.

Financing—working in mortgage loan departments of commercial banks, insurance companies, agricultural credit corporations, land banks, production credit associations, and rural credit unions.

Farm Management—providing professional management, computer operations, marketing advice, and linear programming.

Farm Real Estate—employed in land appraisals, buying and selling farms, and rural housing developments.

Private Business—supplying farm machinery, chemicals, fertilizers, appliances, seed, feed, lime, pesticides, insecticides, veterinary supplies, pharmaceuticals, lumber, hardware, L.P. gas, gas, oil, lubricants, car and tractor needs, buildings, silos, and many other production and consumption goods needed by farmers.

Transportation and Utilities—furnishing trucking, rail, and air shipping, electric, water, storage, and warehousing.

Farm Cooperatives—working in management, member and public relations, sales, procurement and processing, comptrolling, accounting, economics, commercial research, warehousing, auditing, and as field representatives.

Grading, Packaging, and Labeling—providing statistics, inspection and supervision, legal advice, price analysis, computer analysis, legal interpretations, container designs, and quality control.

This is a modest listing of fields in which business-trained young men, especially if they have a farm background, can find rewarding employment at many levels of corporate operation. Opportunities vary with the size of companies, by regions of the country, and by the abilities, experience, personality, and training of the person seeking a position.

It appears that these opportunities will be more plentiful in the years ahead. The reason—because specialization in agriculture will increase and farm and ranch operations will need more supplies and services from agricultural business specialists than in former years of American agriculture.

Other Inducements

Besides attractive salaries, other steps are taken to woo promising college students away from competition in this talent seller's market. Providing summer employment between the junior and senior college years is one method of attraction.

A local production credit association has just hired—at a very good salary for training purposes—an advisee of mine for the summer before he enters his senior year. A large farm supply corporation in the Midwest has been hiring a half dozen Juniors for summer employment and training, after carefully screening applicants for several years.

Others have provided valuable scholarships to upper classmen who might thereby also become interested in employment with the donors although no "strings" are attached to the awards. Some companies have undergraduates spend a year in the employment of a company and after that have them return to college, get the degree, and return for full employment with the company. Still other firms go to the expense of moving the grad and his family to the place of employment as an additional inducement to go with the firm.

Companies also report that training periods for recently hired grads are being shortened and made purposeful so as to lessen the turnover of discontented job holders who feel they are not being used productively or being noticed sufficiently by superiors. One company, for example, that formerly had a maximum five-year training program before making a young grad a store manager has now reduced this training to one year.

Preparing for Business Careers

Following college prep and vo-ag in high school, students can prepare for business careers by: (1) becoming proficient in the use of the English language (read and write well and spell correctly); (2) taking courses in mathematics, statistics, and computer science; (3) studying accounting, business law, personnel management, corporation finance, money and banking, credit, marketing, and several economic principle courses as supplements to regular agricultural courses; (4) obtaining work experience during summers, or even part-time while attending college, in an agricultural business.

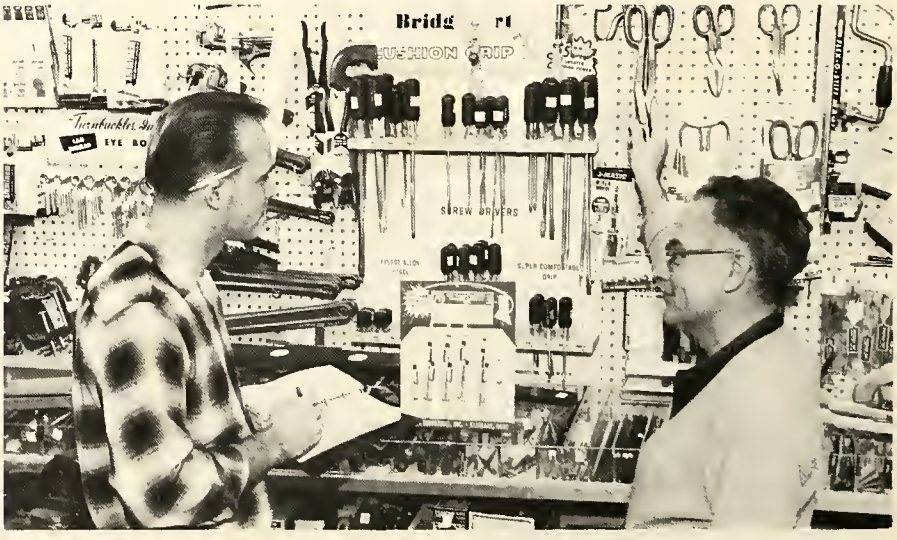
Leadership in Agriculture

The leadership and the executive positions in agriculturally-related businesses of tomorrow will consist largely, but not solely, of young men (and in some cases of young women, too) being trained in business today. The glamour fields—chemistry, physics, engineering, medicine—are not the only attractions for undergraduate students.

The American Council on Education reports that more college freshmen in 1969 expect to major in business than in any other area. The enrollment in graduate programs in schools of business or commerce also has more than doubled in the past ten years. The increased enrollments in agricultural business courses and majors in agricultural economics in our agricultural colleges are also indicative of this interest in business-oriented careers. *(By Marvin A. Schaars, Agricultural Economics professor, University of Wisconsin)*

With the advent of one-stop farm service centers, private business will be seeking more men with a knowledge of hardware and other production supplies.

USDA Photo



Jobs Awaiting In Education

SOME of the most satisfying careers in agriculture are in the field of education. As a teacher, you not only keep up-to-date in the fast-moving industry of agriculture, but you help pass this knowledge on to those who put it to use. You may work with adults or youth, or both.

Want proof it's satisfying? Just ask any teacher of vocational agriculture who has been in the field for a number of years and watch how he beams with pride when he tells you about some of his former students.

However, the broad field of education in agriculture includes more than teaching vocational agriculture. You can be a county agent, an extension specialist, college instructor, work with farm organizations, business firms, government, or even in foreign countries with the various aid programs.

What are the qualifications needed for working in agricultural education? Here are the desirable characteristics for teaching vocational agriculture listed by the Agricultural Education Division of the American Vocational Association. Most of these will apply to other education positions in agricultural as well.

- Make good grades in high school.
- Like to work with youth and adults.
- Want a teaching job that includes outdoors, as well as classroom work.
- Have had experience working in farming or in the agricultural industry.
- Like to work with people—farmers, businessmen, and other people.
- Have a pleasing personality and cooperative attitude.
- Have a missionary zeal for improving the status of your students.

As an educator you not only affect today's youth, you influence generations.

Teaching Vocational Agriculture. There are more than 10,000 teaching positions in vocational agriculture in the United States and the number is expected to increase to over 12,000 by 1975. Some 7,360 of these teach in a single teacher department and 3,198 teach in a multiple teacher department. Still, more teachers are needed. According to Dr. Ralph H. Woodin at Ohio State University, who has researched teaching needs, 55 departments of vocational agriculture will not operate in 1969-70 because of the teacher shortage and another 278 teachers are holding temporary or emergency certificates.

That means a job will be waiting for you when you graduate from college with a Bachelor of Science degree in agricultural education. What is teaching vocational agriculture really like? Your best source of information is your own teacher of vocational agriculture. Ask him.

As a teacher of vocational agriculture, you may have an opportunity to specialize. Some teach only adults and young farmers, a still larger group teach high school classes only, but most will teach both. Some teach only in production agriculture programs while others teach one or more classes in other specialized areas such as agricultural supplies, mechanics, products, ornamental horticulture, agricultural research, or forestry. In most teaching situations in vocational agriculture, you will serve as advisor to the FFA chapter.

Cooperative Extension Service. The Cooperative Extension Service has been described as the largest out-of-school educational system in the world. It employs some 15,000 professional extension workers and about 11,000 of these jobs are at the county level. The Extension Service is a joint effort of the Land-Grant Universities, USDA, and your county.

Recent college graduates are usually employed in a county as an assistant agent. Assistant agents may do general work or they may specialize in an area such as 4-H Club work, livestock, farm or home management, or rural area development. As an extension agent, you will advise farmers, home-owners, and managers of agricultural businesses, convey information to people through field demonstrations and group meetings, assist farmer cooperatives, and engage in many other similar duties. There are also jobs for specialists in the extension service, particularly at the state and federal level. To qualify for one of these careers, you need a degree in agriculture, home economics, sociology, economics, or other closely related fields from an accredited college, and possess good personality and leadership qualities.

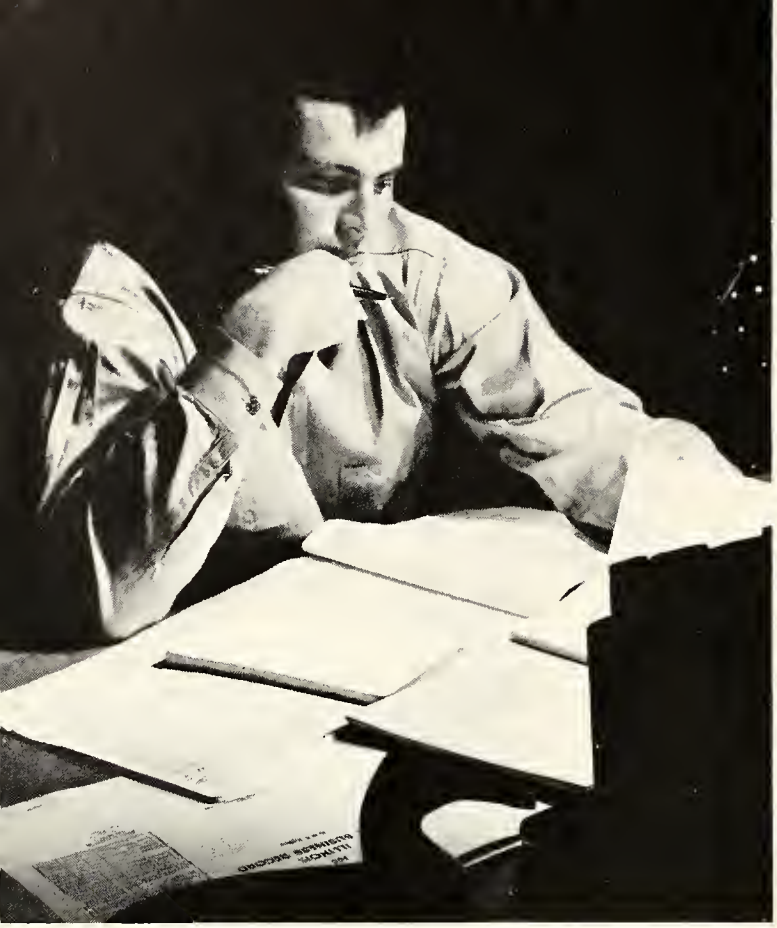
College and University Teaching. This field is rather specialized and usually requires a graduate degree. Colleges are seeking talent in a wide variety of subjects related to agriculture ranging from biology, economics, food technology, chemistry, engineering, and marketing to the traditional agricultural subjects. Instructors in colleges and universities frequently have the opportunity to combine teaching with research.

Industry. Industry and many of the associations serving agriculture employ capable instructors to train their employees, or carry out educational programs for their customers or association members. As in other teaching positions, a person must be able to speak and write effectively, have a good personality, and leadership ability.

Teaching Agriculture Abroad. There are opportunities for agriculturally trained teachers in international agriculture, particularly in the developing nations. Many of these are with the various aid programs of the U.S. Government, with church related groups, and similar programs.

This is not a complete list of all the opportunities to work in an educational career in agriculture. It should help you decide, however, if this is the field for you.

Where do you start. First, set your goal on a Bachelor of Science degree in agricultural education. You will find that a Bachelor of Science degree in agriculture education will qualify you to teach vocational agriculture in most states, open the door to many other challenging professional agricultural occupations, and serve as a prerequisite for advanced study leading to positions in teaching, supervision, research, and other fields.



Whatever your interest in agriculture, International is interested in you

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Or maybe you'll stay on the farm. You can look forward to a continuous flow of new and improved equipment from International to make your investment in land, time, machines and management pay you the best possible returns. Such innovations as Hydrostatic All-Speed Drive in tractors, Monitor Control in combines and other engineering advances are proof that we intend to remain first to serve you—America's future farmers.

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Industry's Ever-Changing Opportunities

AGRICULTURAL industry is looking for the "specialist." Whether he be a salesman, business manager, accountant, or production supervisor, this "specialist" is needed by industry today in ever-increasing numbers.

Truth is, the real "pros" will tell you, employers are looking for skilled young men who can help their business grow and prosper. Agricultural industry, or agri-industry, is competitive—and properly trained and motivated individuals oftentimes make the difference between profit and loss.

A young "specialist" will find a wealth of career opportunities and growth among agriculture's manufacturing and processing industries. It is youth who lay the groundwork for company profits—and it is these profits that pay for salary increases and profit-sharing plans.

Manufacturers of most farm equipment need men with ag-backgrounds.
Kelly-Springfield Photo

What is Agri-Industry?

You can sum up the role of agri-industry best by noting that it's "one step removed" from farming. Agri-industry manufactures products used in agriculture—the actual tools of the trade. It is also responsible for purchasing products produced by farmers, and processing them into products of use to consumers. Within these two major areas lie hundreds of new and changing career opportunities for young men.

Most of these career opportunities were unknown to FFA members' fathers. In fact, Dr. Russell E. Larson, dean of Pennsylvania State University's College of Agriculture, points out that more than half of the jobs taken this summer by agricultural graduates did not even exist when the students were born. And that was only 21 years' time!

How important is agri-industry to the total U.S. economy? Three out of every ten jobs in private employment are related to farm supply. For every farmer in the United States, five other workers in agri-industry (a total of approximately 12 million persons) serve him.

What then are the specific career positions you can expect to find within major segments of agri-industry.

Machinery and Equipment. Several hundred commercial U.S. firms manufacture farm machinery, from the full-line "big-six" to manufacturers who produce only component parts such as plow shares or tractor superchargers. These firms need college-trained engineers and draftsmen to design equipment; buyers and accountants to purchase and bill suppliers and dealers; fieldmen who call on dealers and customers to demonstrate and advise; communicators to design advertising and sales promotion; production supervisors to manage in-plant operations; and company sales representatives who take final responsibility of selling the finished product.

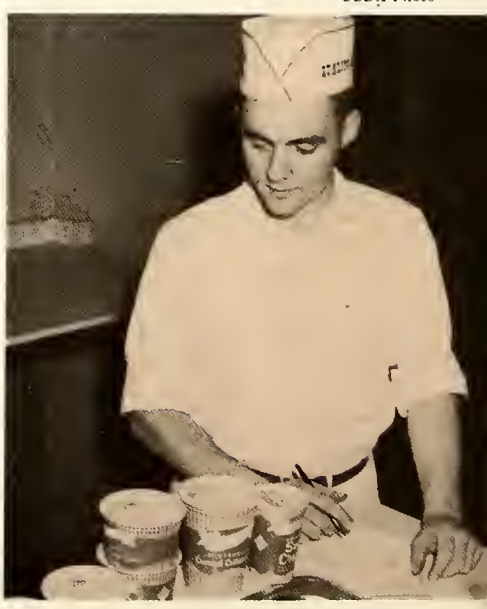
All of these men must know agriculture and farm suppliers, yet each must be a specialist in his own field. Formal education, a farm background, and on-job training are usually required.

Buildings and Utilities. "Packaged building units" are blossoming in agriculture—and with them opportunities to design and sell customized controlled environment structures. There are manufacturers of complete buildings, building components, plus short-line suppliers of components, such as ventilation systems and automated materials handling systems.

Career opportunities are chiefly in engineering, in-plant production, accounting, and sales. This field allows good opportunities for young men skilled in farmstead planning; men who can work with farmers in planning and designing building units for modern farm operations. Duties include structural design, environmental studies, as well as considerable farmer contact.

Food and Commodity Processing. This specialized career field includes

Demands for food service technicians and supervisors are increasing daily.
USDA Photo



processing and marketing of agricultural commodities such as wheat, soybeans, rice, and dairy products. Opportunities are for experienced grain buyers, truck drivers, commodity inspectors, and field representatives who call on farmers and establish grades and prices, food service technicians who follow commodities from farm through processing to consumer-ready products, statisticians, communicators skilled in advertising and promotion, plus skilled specialists who keep constant tabs on supplies and demand throughout the world.

In addition, within this field are opportunities for brokers trading on commodity markets, as well as marketing directors who must forecast future crop yields and weather patterns.

Farm Chemicals. One of U.S. agriculture's largest industries is the farm chemicals industry. Grouped here are the manufacturers of fertilizers, pesticides, herbicides, and growth regulators. Research, plus field demonstration plots are the keys to this industry's success.

If you want to get on the actual development of the chemicals, you'll need post-college degrees in science and agronomy. But excellent opportunities exist in field demonstration work (working with farmers to field test the product); government and university liaison —to coordinate test results and data; advertising and sales promotion; farm service centers, where the bulk of the chemicals are sold; and sales to both dealers and farmers. Young men with backgrounds in both agronomy and agricultural education are especially valuable to this industry.

Feed Manufacturing. Nutrition of livestock is agriculture's most basic field—that's the formulation of high-energy feeding rations. Hundreds of commercial firms and farmer cooperatives manufacture feed in this country.

They need grain buyers; laboratory technicians to check moisture and nutrient contents; in-plant production personnel for actual manufacturing; accountants; production and marketing supervisors; advertising and promotion staffs; plus, sales representatives to turn the finished feed into profits. Career opportunities in this industry are located in nearly every state in the union.

Seed Industry. Ever pay $15.00 for a pound of seed? Plant breeders often do —to develop new strains and varieties of more efficient crops. Researchers isolate hundreds of seedling possibilities and grow them in a variety of environments.

Careers include, in addition to plant breeding, seed processing and production; agronomic services such as crop management and fertility; research including test plots and cropping demonstrations; data processing to evaluate breeders' data; plus seed promotion and sales. This career field allows much farmer-dealer contact work, of which most is done in rural areas. "You can actually see your work grow!" one successful seedman iterates.

Cargill Photo

Working in nursery operations for seed companies is a growing career opportunity. Crop testing in foreign countries is also expanding job opportunities.

Meats and Poultry Packing. Selecting animals "on the hoof" in feedlots—grading carcasses in processing plants—inspecting meat cuts and products as they move along an assembly line: That's the meat packing industry.

You can choose a career as a buyer for stockyards and feedlots; as a professional veterinarian who inspects and approves carcasses; or as a trained meat cutter in the modern processing plants. Fieldmen are important to chart availability and acceptability of cattle and poultry. Sales representatives and communications specialists are needed in the consumer end; while statisticians and accountants are needed in the commercial plants.

Forest Products. A consumer products arm has been added to America's forest products industry. Complete farm structural packages are being offered, from pre-assembled building units—to pre-fab farm storage bins. Challenging opportunities are now available in engineering, design, assembly, dealer development, and farm sales. Within the total forest products field, a host of careers are available—almost as boundless as the young man's fancy.

Most large timber companies manage their own tree farms. Here are careers in timber management and reforestation, production planning, lumber processing (programmed harvesting to cutting procedures), transportation, and sales. The industry needs trained foresters, entomologists, laboratory technicians, even researchers to search out new uses for forest products.

Large timber plantations are nearly self-contained cities, where specialists in all phases of timber production work in nature's most basic environment. Much of their work is done by air, and trained pilots are in constant demand. On the products end, forestry scientists work to develop new adhesives, improved products for both home and business. Sales representatives test market new products, and skilled communicators develop the "demand" through advertising and promotion.

What's Expected of You?

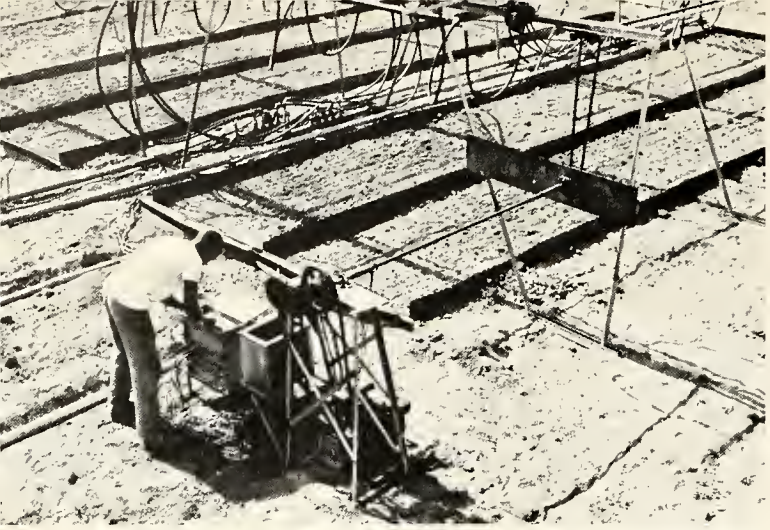
Your agricultural background is especially valuable in agri-industry. But, you'll need to build on this base to meet the needs of fast-changing commerce. Because competition is keen within agri-industry, most management and professional positions—including sales—require two or more years of college.

You'll need to major in the sciences —chemistry, animal science, botany, agronomy, or microbiology. English is important. Few agri-businessmen have been successful without being able to communicate effectively.

After school, experience is critical. Choose your work carefully, keeping in mind your areas of interest—as well as where good experience can be gained. After a while, you'll have to justify your salary with your contribution to the company.

Can't manage college or post-high school study? Agri-industry still has opportunities open for you. Agri-industry is willing and ready. How far you go depends on you. *(By Paul Weller)*

A Wide-
Demand
In Basic



USDA Photo

Ag engineers not only design equipment, they check out weather instruments like this one and program computers.

BUT why? Or how? Agricultural researchers try to answer those questions as they apply to all segments of the agricultural complex.

Curiosity about life cycles of plants stimulates a question like, "But why?". A new insect that threatens to wipe out a crop prompts a question like "How?".

There are career opportunities in research in all major agricultural career fields. In fact, a segment on research could be added to each of the other seven career areas in AgriOPPORTUNITIES.

Production Research

One of the basic kinds of agricultural research seeks answers to questions about agricultural production. Crop researchers conduct studies on field and horticultural plants to seek new and improved varieties of cereals, grasses, fruits, vegetables, ornamental plants, nuts, tobacco, and plants for sugar, flower, fiber, and oil. Resistance to diseases, insects, nutritive quality, yield, storing, and shipping qualities are also investigated.

Animal husbandry research aims at increasing efficiency and economy of livestock production. Researchers in this area hunt for new and improved methods of breeding, feeding, management of beef, dual-purpose, and dairy cattle; swine, sheep, goats, and poultry; and do studies to improve quality of such products as meat, milk, eggs, and wool.

Engineering and Equipment Research

Another basic kind of research comes under a label of agricultural engineering, equipment, and utilities. Fundamental research and applied research is conducted on the engineering phase of investigations concerned with harvesting and processing of crops, tillage, and related soil mechanics; livestock farm structures; and the application of electric energy to agriculture.

Conservation Research

Ways to improve systems of soil and water management and the control of all natural resources comes under the heading of conservation research. Certainly a major part of the work in this area is done to permit efficient, sustained, and profitable use of soil and water resources. Typical investigations deal with soil chemistry, plant and animal life in the soil, methods of cultivation, irrigation and crop rotation, stream sedimentation, and water runoff. Wildlife studies might include animal habitat, refuge plans, or survival needs.

New Product Research

Probably the category of research that comes to mind first is the chemist (or scientist) at work with test tubes and microscope. They are typical of agricultural researchers who discover

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Spread Exists Research

US Forest Service Photo

Industry and government both look for the man interested in tree, lumber, paper, and other forestry research.

new products, by-products, or uses of present products. Such research as organic chemistry of natural products, composition, structure, and properties; isolation and characterization studies; or process and product development is part of this category.

The Agriculture Research Service (ARS) of the USDA is a leader in this category of research. This category is such a large part of the ARS that they have established regional divisions. Some of the eastern division research assignments are in the field of meat; eastern vegetables and deciduous fruits; dairy products; animal fats, hides, tanning materials, and leather; and tobacco. Some assignments for the northern division are wheat, corn, grains, soybeans; flaxseed grown in the north central states; forages; and new crops.

Southern division assignments include cotton fiber, peanuts, and citrus fruits. Western division assignments are wheat, wool and mohair, poultry and eggs, western fruits and tree nuts, and alfalfa.

Marketing Research

Marketing research is another major category in agricultural research. This would include quality controls, checks and systems for controls, transportation, and facilities research to reduce cost of handling, storing, processing, transporting, and distributing farm and food products through marketing channels. Market demands, likes and dislikes, surveys of readers of agricultural magazines and newspapers, census and farm market surveys are also forms of research in this category.

Certainly most of the opportunities in agricultural research require some specific training—normally a Bachelor of Science degree. Some require even higher degrees.

The list of scientific categories of employees of the ARS gives a fairly complete summary of kinds of training needed in agricultural research. The list includes agronomy, animal husbandry, biology, botany, chemistry, engineering, genetics, horticulture, geology, physics, plant pathology, statistics, soil science, veterinary medicine, or range management.

All of the career opportunities in agricultural research, however, are not in the government. Nearly all industries—feed, seed, equipment, chemical, food, processing, and marketing firms—do research at the manufacturing, wholesale, and retail levels. Colleges and universities also do extensive crop, livestock, communications, management, engineering, economic, food product, and farm supply research.

Locating research work should not be difficult since a research career is for someone with a delving mind and an interest in finding answers to difficult questions.

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CONSERVATION is literally as big as all outdoors.

And the outdoors is what conservation is all about—working with natural resources and with people to make sure all Americans have enjoyable surroundings and the farm and forest products they need.

The conservationist works with resources such as soil, water, and air, the complex inter-relationships of plants and animals on rangeland and in forests, and with pollution and waste control.

Where the Jobs Are

Your career may be in private industry or in the government. Many companies and organizations employ conservationists to keep their property safe from damage, make the best use of their land resource or for harvesting the company's product, and to carry out many other assignments.

US Soil Conservation Service Photo

Providing ranchers and farmers with watershed information and ranch conservation help, besides working outdoors, makes conservation an exciting career.

Conservation's Big Job Picture

CONSERVATION

There are a large variety of wildlife conservation opportunities such as private hunting clubs or fishing areas that need managers, wildlife educators, journalists, or promotion specialists. There is also an increasing opportunity for teachers who have been trained in wildlife and forest conservation work.

And still more conservationists are employed by many government agencies at the county, state, and national level. Two of the major conservation agencies at the federal level are the Soil Conservation Service and Forest Service in the U.S. Department of Agriculture. Other government areas include the National Park Service and the Bureau of Sport Fisheries and Wildlife in the Department of Interior.

The Soil Conservation Service(SCS)—Some of the major responsibilities of SCS are:

- Helping land owners and operators plan and carry out conservation plans through local districts operated by landowners.
- Helping local organizations plan and develop small watershed projects to reduce flooding and provide water for irrigation, livestock, wildlife, recreation, and municipal uses.
- Carrying on snow survey and water supply forecasting work in the water-short Western states.

The Forest Service—"Smokey the Bear" and forest fire prevention come most quickly to mind, but the Forest Service has many conservation functions that help furnish American citizens a continuing supply of timber, forage, watershed, wildlife, and recreation resources:

- It administers 187 million acres of national forests and national grasslands, located in 41 states and Puerto Rico.
- It carries on forest and range research that gathers basic facts needed to carry out management programs.
- It cooperates with states and with private forest landowners to protect and manage the nation's timberlands.

Some Major Conservation Careers

Soil Conservation—The work of the soil conservationist requires that he have technical knowledge in such fields as agronomy, range management, forestry, biology, engineering, soils, and farm management. With this background, he is able to suggest land use alternatives, develop conservation plans, and give technical advice for installing conservation measures such as terracing, strip cropping, planting trees or wildlife cover, and establishing recreation facilities.

Soil Scientist—He examines the soils in a field, studying the physical and chemical properties that affect the use and management of the land. He collects soil samples from the field for laboratory examination. He prepares field notes and reports of the features that he has mapped and observed. A soil scientist also collects data on crop adaptabilities, yields, and responses to different systems of management; predicts yields of crops, grasses, and trees that can be produced; and predicts physical behavior of soil in relation to agricultural and engineering uses.

Engineer—Engineering varies from cartography to construction, from geology to streamflow forecasting. The SCS engineer is skilled in moving and shaping earth, in designing and constructing earth dams and diversions, in shaping and stabilizing stream courses, and in using steel and concrete to control water. In the Forest Service engineers—mechanical, highway, and civil—plan, design, and supervise projects for fuller use and enjoyment of the nation's forests.

Range Conservationist—He plays the vital role of protecting America's vast expanse of grasslands that "grow" livestock for the dinner table; provide habitat for wildlife; and open up new recreation opportunity for Americans. The range conservationist makes studies to determine how much forage a rancher can expect of his range. He classifies natural plant cover according to its condition and suggests its most effective use.

Forester—The forester is the primary employee category and is responsible for the Forest Service's major activities of administering the forests and handling timber sales and recreational and watershed management programs. The job calls for knowhow in dealing with plants and animals, and increasingly, in dealing with people as public use of national forests increases. In the Soil Conservation Service, the forester or woodland conservationist works with private landowners in making best use of their woodland acres.

As a great conservationist, Russell Lord, wrote many years ago: "There is work here for you . . . decent, vital, and absorbing work."

New Careers In Ag-Services

USDA Photo

Agricultural specialists will find a growing variety of foreign careers in business, industry, and government.

A FAST-GROWING area of career opportunities lies in the field of agricultural service. Such jobs include working in government, business, and industry to provide assistance to the farmer and consumer alike.

State, local, and national governments need agriculturally trained personnel for meeting the requirements of an increasing population. In supplying food and fiber, community development, and recreation, opportunities are especially high. Inspection and regulation of food, feed, seed, fertilizer, chemical use, and plant and animal quarantine offer many more government service opportunities.

Today there are an ever increasing number of service careers open in business and industry. They include providing technical assistance, supplying veterinary service, and working in international agriculture. Other opportunities are available in organizations and foundations.

So, if you like to serve your fellow man and receive good pay while doing it—between $6,000 and $8,500 a year to start—the area of service may be for you. Here are some of the exciting service opportunities.

Chemicals. As the use of chemicals rises, so do the number of jobs in this field. Young men who like chemistry, biology, entomology, pathology, mycology, and nematology all can find exciting careers working with chemicals.

Most service jobs dealing with chemicals can be found in government. Some jobs deal with growing crops and stored grains, some with seeds and feeds, and some with animals. Seeing that new chemicals work as specified on the label in the control of pests and diseases are some of the opportunities. Providing control measures and guidelines for prevention of outbreaks in plants and animals also demands people trained in science. Establishing plant quarantines and monitoring residues and effects in soil, water, and air provide still more careers in the expanding and concerned area of pollution.

Food and Feed. An important part of our economy involves making sure that consumers get quality food products. Such jobs as inspecting milk and milk products and frozen, canned, and fresh fruits and vegetables offer rewarding careers.

Government service holds forth many interesting duties such as classifying and certifying food products. Also, devising and setting new procedures and regulations for suppliers, processors, and warehouses to follow opens more opportunities as new products are put on the market. Investigating and gathering court evidence to prosecute violations of product adulteration, labeling, misbranding of food, drugs, cosmetics, medical or therapeutic devices, and other chemical products used by consumers, offer exciting careers in public service.

In the feed industry, government needs young men to inspect and check antibiotics, drugs, and stimulants used in promoting animal growth. Looking for carryover of adverse effects to humans, setting standards which feed producers must meet, and enforcing feed regulations provides additional service opportunities.

Foreign Agriculture. Opportunities for international agricultural specialists are expanding almost as fast as the space program A growing demand for technical assistance in crop production, machinery operation and use, livestock husbandry, and other land and water practices is needed more and more as population in other countries rises. Opportunities to help educate a country in modern agricultural practices are open to individuals who understand a foreign language and know the social aspects of a people.

Professionals trained in agriculture can serve in making agricultural policies and helping international relations around the world. People with an understanding of agriculture can help foreign scientists, industry, and governments to help themselves in the fight against hunger. Serving as agricultural missionaries, Peace Corps volunteers, or as foreign aid technicians all provide broad and exciting career opportunities in foreign agriculture.

Working as a customs official is another exciting career opportunity. Many people are needed to inspect for illegal goods, narcotics, and drugs. This may include inspecting airplanes, ships, vessels, or boats with X-ray and closed circuit TV for smuggling of low quality goods and detecting diseases and pests.

Organizations and Foundations. Working with cattle, sheep, hog, horse, and other livestock associations provides many opportunities of working directly with farmers. Crop associations do, too. In many cases this involves working with awards and recognition programs.

Working with scholarships, trust funds, and grants holds out other rewarding career possibilities, especially from the point of self-satisfaction. Associations dealing with the trading of agricultural commodities offer still other choices of challenging careers in indirect service to the farmers.

Quality Control and Grading. In this field of service, agriculture career op-

(Continued on Next Page)

portunities lie in assuring an acceptable product throughout every stage of life cycle of a product. These government and public service careers include setting U.S. quality grades and maintaining surveilance over the inspection systems of the food and fiber industry.

People in this important service area develop, install, adapt, and revise state and national program plans and systems of quality control and grading. They work with petroleum, feeds, fertilizer, seeds, clothing, textiles, leather, synthetic fabrics, and all other agricultural products and by-products.

Seed and Fertilizer. Working this area of service presents many opportunities in the testing of new seed varieties. Taking and classifying seed samples, inspecting seed for diseases, making germination counts, and inspecting growing plants are a few careers that permit an individual to remain close to agriculture. Maintaining seed regulations to insure that a farmer receives what the label says provides other responsible state and national government careers.

The inspection and regulation of the fertilizer industry offers many government job opportunities with several new fields coming into being as technology increases. For example, the management of turf grass is becoming more important as the urban population increases. Thus, service to the homeowner through the inspection of lawn plant food becomes a greater responsibility. Meanwhile, opportunities in the regulation of fertilizer sold to the farmer expand almost as fast as the kinds of formulations change.

Statistics. Gathering statistics and facts which can be used by the public offers many careers in agriculture. Making surveys and tabulating data for the government to provide useful information for farm magazines, papers, advertisers, and especially farmers is growing with the rest of agriculture.

You can find career opportunities in taking farm census or collecting crop or livestock data. The decemination and analysis of previous information gathering methods and providing statistical reports needs people with new ideas. Statistics careers also include collecting information about the futures market as well as the cash market.

Technical and Consulting. This service career area is just beginning to grow. Previously, artificial inseminators and canning company fieldmen made up this entire group of workers. Now representatives from almost every private profession are in the act.

Representatives from banks, cooperatives, credit agencies, and insurance companies provide financial advice. Professional farm managers are continually being sought by individuals, colleges, companies, and government. Technologists in forestry, range, crop, and livestock production are in demand even more as our knowledge of agriculture advances.

Attractive job opportunities in the city, county, and regional planning are on the upswing. Building new parks, recreation areas, housing developments, roads and highways, and other land use projects all require men trained in agriculture.

Veterinary Medicine. With the advent of veterinary clinics, opportunities of providing livestock medical service directly to the farmer continue to grow.

USDA Photos

Statisticians and other facts collectors keep on top of the ag situation.

Besides looking into private business, research, processing, and education for careers, many young men interested in livestock medicine can find satisfying positions in service to the public.

For example, your skills in meat judging can help you in finding careers in meat and meat products and poultry and poultry products inspection. These opportunities are available at the state and federal levels, and indirectly provide the farmer with an important service while directly guaranteeing the consumer a quality product. As an inspector you would deal with packing plants, warehouses, wholesale and retail stores, or restaurants. Even the military service has need of men trained in this area.

Careers in state, national, and international control and eradication of diseases and pests to livestock are in great demand. Working in these positions you would investigate the cause, the scope, and recommend measures and programs for combating the menace. With the increase in population, the responsibility of these disease and pest control specialists becomes more important.

Other veterinarians find careers in the area of animal quarantine and inspection. They administer and interpret data on viruses, serums, toxins, and other products used in the treating or stimulating growth of livestock. Some of their responsibilities include setting standards, licensing, and inspecting of these products both for interstate and state use.

When planning a career in any of the service areas mentioned, it is a good idea to contact someone already working in that field. He, or the governmental department or business he is with, can help you outline a program which will lead to a rewarding career in agricultural services. Besides, a good educational plan usually means more satisfaction and pay in your chosen occupation later on.

Besides general practice opportunities, the veterinary field offers public service careers in national and international control of diseases and insects.

Farm Ownership The Biggest Challenge

FARMING opportunities will be fewer, but the rewards are doubling at an equal rate! It will be a young man's game where the challenges and income will match anything business and industry can offer. Clearly, farm owners will be the chief executive officers of agriculture.

To see the future you need to study the past and watch the growing trends. Consider farming. In just ten years, some twelve million farmers have become drop-outs . . . sifted out because of their inability to manage their farms on an economical basis. Some, who had the management ability, were at an age where retirement outweighed challenge.

Dr. M. E. Wirth, ag economist and farm management specialist at Washington State University, has made some projections on the future of farming. He notes that in 1964 there were 31,400 farms which grossed more than $100,000 annually. They produced 25 percent of all the total farm sales.

These represent the prototype of the future farm. Using that as a base, Dr. Wirth figures that it is possible by 1980 for 138,000 such farms to produce as much as *all* farms in the nation did in 1964.

Think what that means . . . a 95 percent reduction in the number of farms. On that basis, he's saying we now have 58 times too many livestock farmers and 12 times too many cash grain farmers.

Remember, these are only projections of what could happen. No one can predict the future. But the trend is clear. A half million farms or less are in the cards.

This trend will create many opportunities, especially for farm managers. But farm owners will be the chief executive officers of agriculture. That's the very top, and an exciting goal for the brightest young men in agriculture.

For those who hope to reach the top, to become the chief executive officers of agriculture, it means that you must be schooled in and understand the universally usable and basic management practices. It's true that agriculture is more than farming, but farming is not unique among other industries. You will need to look to other businesses for the best management ideas to solve your problems, regardless of the industry it may come from—not to agricultural management as something unique.

Reaching for the top. As you look at farming as a non-unique business, certain non-traditional routes to ownership become clear. The concept of complete business debt retirement can have no place in your strategy to reach the top as a farm owner. The skillful and continuous use of borrowed money is essential to your farming business as it is in any manufacturing business.

If your goal is only farm ownership —getting the farm paid for and out of debt—then you are doomed to failure in the fast-moving world of business.

To reach the top you will need to understand and promote farm incorporation . . . probably of your parents' home farm as a start. The reasons are obvious. With the home farm incorporated, it is much easier for you to use the farm in building an equity base to get into and continue farming on an efficient and expanding scale by using borrowed money. It sets up a junior-partner, senior-partner relationship where you are in "training" ahead of time.

In the years ahead such a step will make it possible to get an even larger money base through the public sales of securities. A step that more and more successful farmers of tomorrow will be using Of more immediate interest is the fact that incorporation will ease the sharp bite of inheritance taxes you would otherwise have to pay.

Even if you don't have a home farm as a base to build from, the combination of tenancy and incorporation can serve your goal. Not long ago *The National FUTURE FARMER* editors talked with a family where the only son, because of an injury, could not step into the management of their large farm. So the father is incorporating and bringing in a young man from the area to take over. Eventually, the young man will own the majority of the farm, and to it he will be able to add his own father's small acreage.

Incorporation and tenancy is giving this young man the chance to farm . . . to reach for the top. His own father's farm would not have supported him and chances are he would have to leave the business of farming.

Such opportunities are not as uncommon as they may sound. In Ohio re-

(Continued on Next Page)

Common traits of farms of tomorrow will be more specialization and size.

A O Smith Harvestore Photo

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Delaware Valley College offers a program in the science of agriculture with majors in the following fields.

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For further information complete the following form and send to the Director of Admissions
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cently we heard of several thousand acres that were "going begging" because there weren't any young men who wanted to take on the challenge. It's causing older land owners to look for new ways to attract young men into the business of farming.

One idea is separate corporations . . . one for landowners and another for management renters. Both would have shares in each corporation as well as directors. Such an arrangement puts as high a value on management that wants to farm as it does on ownership. It helps land owners find men who want to farm.

Farm of tomorrow. From information provided by agricultural economists it is possible to paint a picture of how your farm might be organized and what it will be like. Dr. J. A. Hopkins, University of Illinois professor of finance, sees a bright future for the two-man farm unit of 1,200 to 1,600 acres.

Such a farm is big enough to achieve the maximum economics of scale. Note, however, that Dr. Hopkins is talking about control of acreage . . . not ownership. A majority of your acreage could be rented.

He does, however, warn against the one-man farm unit. Such farms tend to "peak out" when the farmer reaches age 40. Such a farmer is likely to scuttle expansion plans because he doesn't want to work any harder or invest in things he won't see paid off.

On a two-man farm, the added man will be a general manager, financial manager, production manager, marketing manager, personnel manager, and product manager all rolled into one. Or, these responsibilities may be divided between the owner and the added staff member.

Larger farms will have staff members for each of these functions. Some functions on large farms may require several staff members. Many of the two-man farms will take advantage of outside management firms to provide business services.

Such farms will also have specialized divisions under owner management or be specialized in only one production area. These farms might have a corn division, a beef division, and a soybean division. For some of the really large farms there will even be geographic divisions. For example, there might be a Mississippi soybean division, a Texas feedlot division, and an Iowa corn division. Some farms will even add overseas divisions.

The conclusion is clear. There will be many opportunities in agriculture, but farm ownership is the top rung of the ladder. There will be fewer of these opportunities, but income and responsibility will be twice as rewarding. Your farm and vo-ag background can be used as a stepping stone, that others lack, for making the new ideas in farming work. If, on the other hand, you let these advantages tie you to the past, someone from outside agriculture will step to the top.

A chief executive officer in agriculture will need to be a production and marketing adviser, a livestock or crop specialist, and a top business manager.

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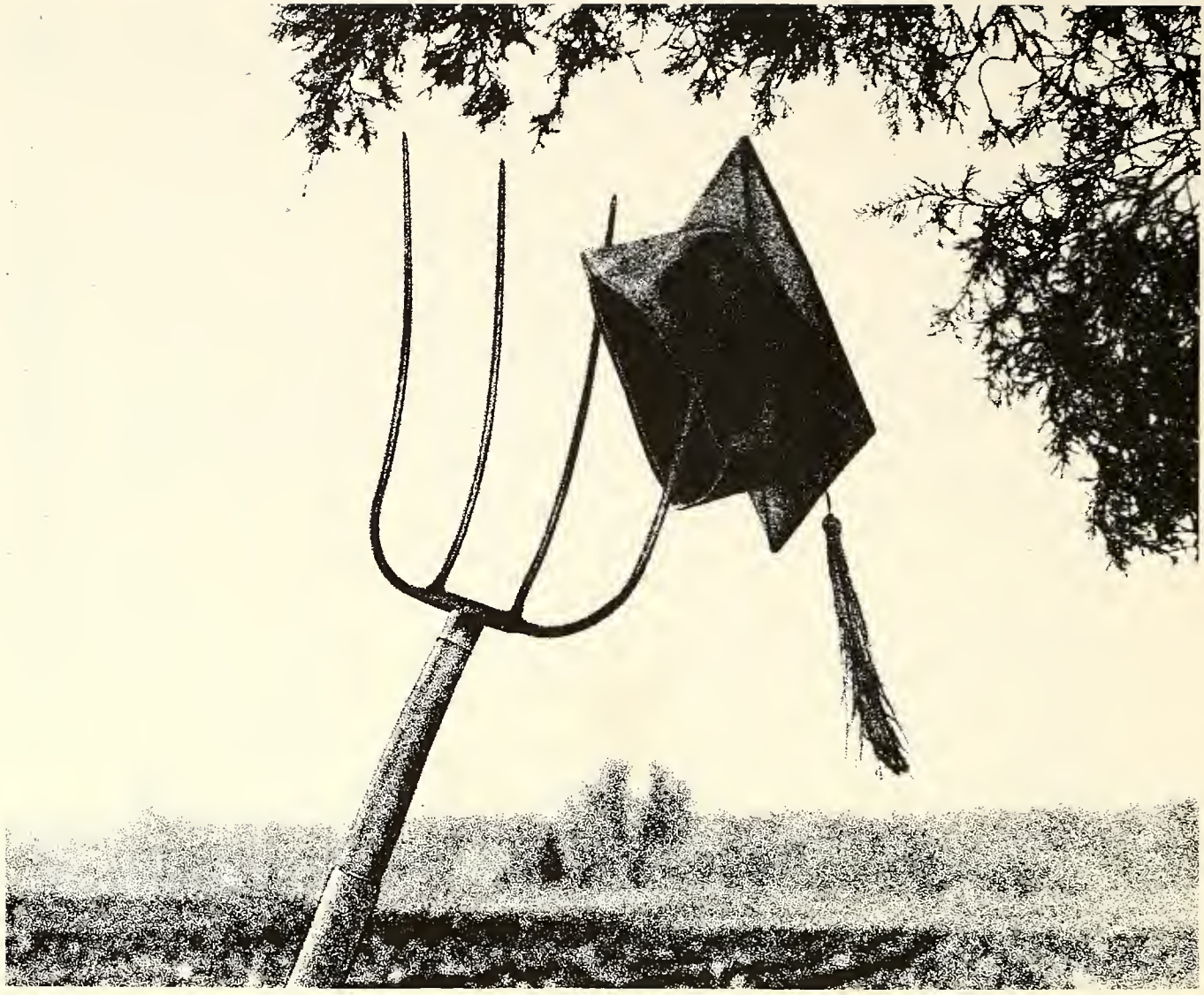

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Farms must produce more. And agri-business, already a mammoth industry, will continue to break records in growth.

Even now, a typical farm state with 80,000 farms has 70,000 farm-related firms. Another state with 130,000 farms has 125,000 agri-business firms.

Tens of thousands of businesses are looking for young people with agricultural training who have an aptitude for business administration, science, mathematics, writing or speaking, an interest in sales or meeting the public. They seek people with broad educational backgrounds. Positions in agri-business with the brightest future usually require a college degree.

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NAAMA

SPORTRAIT

By Stan Allen

DEAN Oliver, 40 year-old veteran of 16 years on the professional rodeo trail, has all but cinched his eighth roping title. He would be the first roper to win eight titles and the first rider to win as many in one rodeo event.

It has been a long hard trail for this Nampa, Idaho, farm boy as he had to work most of his young life to help support his family after his dad was killed in a plane crash. He didn't even see his first big-time rodeo until he was 19, but he was impressed with calf roping.

It wasn't long before Dean was throwing a loop over everything in sight. Working on a dairy farm at the time, he would go out after dinner and try to throw and tie the calves. He managed to borrow a horse to enter a local amateur rodeo and soon learned there was more to roping a calf than a bale of hay.

Dean finally decided on a rodeo career when he was 20 years old and bought his first horse. He began to enter local rodeos in 1951 and won $80.00 on his tenth try. During those early days Dean pulled a crude trailer with an old pickup truck and many nights he and his wife would sleep in the trailer. His winnings of $4,000 in 1951 and 1952 were small and often he and his wife had to find farm work to earn the next entry fee.

Dean joined the Rodeo Cowboys Association in 1952 to have a chance to compete for the big money on the major circuit. He "bought" a ride, where a cowboy shares his winnings for the use of a horse, at the Albuquerque, New Mexico, rodeo and finished second in the over-all event to win $1,250. He finished a half second behind the winner a week later in Denver, and won $1,250 again.

Dean bought an old rodeo pony that was past his prime, but knew all of the tricks, letting Dean concentrate on roping. He then went to San Francisco's Cow Palace and won $550 in the first contest on his new horse.

Dean began 1953 at the National Western in Denver, trying to win a stake for that year. He didn't win a dime and it was back to ranch work to build a new stake. Unlike most pro athletes, a rodeo cowboy is usually his own backer and has to pay entry fees for every event. And he doesn't receive any pay unless he wins.

Dean did win $6,163 to give him a start for the next year and he took off at a gallop in 1954 when he roped for $11,153 to win third place honors in calf roping. He amazed the rodeo world in 1955 when he won the title with $19,963. He also picked up $127 steer wrestling for the seventh spot on the All Around Cowboy list. A rider has to win in two or more events to make this list. Dean finished tenth in 1956, but he moved up to sixth in 1957.

Dean Oliver won his second calf roping title in 1958 with a record-breaking $23,269 total. He dropped to third in 1959 and began looking for a new horse. A roper's horse plays a big part in this event and the two he had been riding didn't seem right. He found a little sorrel gelding, named Mickey, and paid $2,500 to get him.

The cowboy and horse team waits for a 300 pound calf to charge out of a stall and across a scoreline. The cowboy then takes off to rope the calf with a 25 foot lariat. He then has to throw the calf by hand, cross and tie three legs of the calf with a 6-foot pigging rope, and do all of this in about 10 seconds. Mickey gave Dean a good surge of speed coming out of the box, would slam on the brakes at a signal, and then back up and bring the calf to Dean for the throw.

Riding Mickey almost exclusively in 1960, Dean won the calf roping title and broke the one-year, one-event winnings record with a total of $28,841. He won the title again in 1961 and placed second on the All Around Cowboy list.

Dean won the calf roping title the next three years for five in a row. He was second on the All Around list again in 1962 and took over the top spot in 1963, 1964, and 1965, and unprecedented honor for a calf roper. He dropped to second in calf roping in 1965 when Mickey pulled up lame and had to be retired.

Dean found another good horse in 1966 and had a chance to win another title with a good showing in the National Finals at Oklahoma City. He was roping fine and seemed to have it won, but his rope broke on the eighth calf. He had one calf left for another chance when, unbelievably, his rope broke again and he finished second.

A year's hard work was lost on the snap of a rope and Dean had to go home to get ready for another year. He didn't enter many events in 1967, but came back to finish fourth in 1968. The International Rodeo Fans club gave him their Sportsmanship Award for his comeback. He had won their Award of the Year trophy in 1965.

Old time ropers have been amazed at Dean's roping this year. In July he won the calf roping events at five major rodeos and roped in $12,000 in 25 days. His winnings totaled over $30,000 in 47 rodeos by August 1. The punishment a pro rodeo cowboy takes, usually cuts their career short. But Dean Oliver has kept himself in good shape, he neither drinks or smokes. He has won almost $400,000 on the rodeo trail and when he does retire, it will be to his Boise, Idaho, ranch. Until then, Dean Oliver will be the rider to beat every time he "pays his money and tries the stock."

"That isn't what I meant when I said I want my quarterback!"

As Dean Oliver (insert) left his horse to throw and tie his eighth calf at the National Finals in Oklahoma City in 1966, his rope broke for a famous second time.

Ferrell Butler Photo

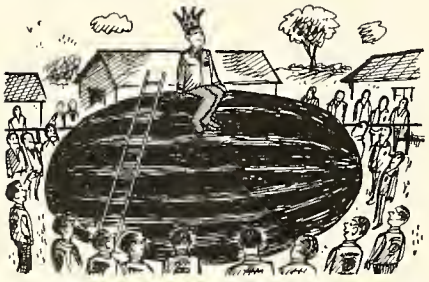
THE CHAPTER SCOOP

news, notes, and nonsense from everywhere

by Jack Bitzer

Holdenville, Oklahoma, FFA entered a float in the county Peanut Festival. The Sweetheart and attendants rode the float. Members rode horseback.

N-N-N



Lonn Stuckwish, *Brownstown,* Indiana, was State Watermelon King in 1967. Now he's state president.

N-N-N

Don Voth reports *Peabody,* Kansas, won the District Parliamentary contest.

N-N-N

How well do officers of your chapter know the opening ceremony? Do you know the responses?

N-N-N

Avon, Illinois, raised money by operating a food sales stand at local fat steer show.

N-N-N

Chestnut Ridge, Pennsylvania, bought a registered Hampshire boar from Pennsylvania State for their swine chain. Members or area breeders can use boar.

N-N-N

Advisor Eubanks got a dislocated jaw from a spill on a surfboard during *Pascagoula,* Mississippi, camping trip.

N-N-N

West Union, Iowa, Chapter parks cars at home football games.

N-N-N

Wisner-Pilger, Nebraska, FFA toured area manufacturing sites.

N-N-N

Buckley, Washington, FFA farm is being tiled by the members.

N-N-N

Members of *Appomattox,* Virginia, Chapter constructed and put up a basketball goal at State FFA-FHA camp.

N-N-N

Community service activity of *San Jon,* New Mexico, FFA is to renovate local cemetery.

N-N-N

William Wingate and **Wayne Collier,** of *Pine Forest,* North Carolina, FFA appeared on local television to discuss their supervised programs.

N-N-N

Bruce Williams, from *Humboldt,* Tennessee, FFA was one of the 121-member National FFA Band.

"We initiated a Big Brother program to build interest of freshmen members," *Le Mars,* Iowa, FFA.

N-N-N

Colville, Washington, FFA checked 45 vehicles at annual safety check. Rejected 16.

N-N-N

Two members of *Rogers,* Arkansas, Chapter received the American Farmer degree. How long since your chapter had an American Farmer?

N-N-N

Florence, South Carolina, FFA initiated 57 new members. Brings total to 250!

N-N-N

North Marion, Oregon, Chapter's dairy herd took dairy herdsmanship at State Fair.

N-N-N

Eddie Brown of *Temple,* Texas, FFA works as a cooperative agricultural student training as a tractor service and repair employee at local firm.

N-N-N

The *Hinsdale,* Montana, FFA went on a three-day campout. Members hunted with bows and others fished. They didn't say they used arrows!

N-N-N

Cover of *Slayton,* Minnesota, FFA program of activities has this title: "FFA is a many spendored thing."

N-N-N

The Greenhands of *Payson,* Utah, Chapter were invited to weekly officers' meeting. Surprised to have hands painted green.

N-N-N

National Heavyweight Garden Tractor Pulling Champion is **Gary Grim,** 16, of *Tontogany,* Ohio, FFA. Had a 50 horsepower Austin-Healy engine.

N-N-N

The *North Carroll* Chapter at Greenmount, Maryland, has a new singing discovery—**Martain and Ruby.**

N-N-N

Advisor Wayne Coy, of *Columbus,* Indiana, FFA was named "Citizen of the Day" by local radio station.

Davis Chapter at Modesto, California, picked up walnuts two days after school to finance delegates to the National Convention.

N-N-N

Local FFA Chapter sponsored barbeque for those attending *Albin,* Wyoming, Festivities Days.

N-N-N

Tolleson, Arizona, members **Ben Gingg, Ralph Bell, Mike Homrighausen,** and **Rocky Gingg,** alternate, were state dairy products and dairy cattle judging teams at National Convention.

N-N-N

One chapter presented the school janitor an Outstanding Service Plaque.

N-N-N

Cheerleaders presented members of *Elgin,* Ohio, with a banner—"We're Proud of Our FFA" at a pep assembly, just before departure to National Convention to receive Gold Emblem Degree.

N-N-N

Wy'east, Oregon, FFA at Hood River is sponsoring Harvest Ball for school. Each class has a queen candidate.

N-N-N

Friday will be jacket day for members of *Beresford,* South Dakota, FFA this year.

N-N-N

First place in Montana FFA community booth contest was *Fairfield* Chapter.

N-N-N

Fund raising idea of *Belmond,* Iowa: set fence posts at $1.00 each.

N-N-N

At *Clayton,* New Mexico, Greenhand creed winner is awarded an FFA jacket by the chapter.

N-N-N

Griggsville, Illinois, Chapter hosted over 100 people at their annual FFA-FHA hayride. Some crowd!

N-N-N

Keep those cards and letters coming, folks! The basket is never too full for a good idea, funny happening, or fact to share with other members.

FFA Scholar Honored

THE Presidential Scholars for 1969 included Teddy L. Lund, a member of the Sandpoint, Idaho, FFA Chapter.

Teddy is one of 121 students who received the Presidential Scholar Medallion for outstanding academic achievement, leadership activities, and potential for future accomplishment. He has served as president of his FFA chapter and plans for a career as a plant breeder after graduation from the University of Idaho.

The Commission on Presidential Scholars reports that it has identified hundreds of America's ablest students, but has uncovered no common formula for genius. Although they shared scholastic eminence, the winners in past years have been as different as any assortment of individuals can be.

Approximately eight of every 10 planned to go on to advanced degrees. Favorite reading included Schopenhauer, John Stuart Mills, and Tolstoi works—and "Fearless Fosdick." Their political views have been strongly held and strongly expressed with about one in three categorizing himself (or herself) as a conservative.

The 1855 turbocharged diesel carries both White and Oliver name.

New For 1970

THERE is a new name in the farm equipment industry. It is White Farm Equipment, created when the White Motor Corporation brought together into one company its two wholly-owned subsidiaries, the Oliver Corporation and and Minneapolis-Moline, Inc. Under the new setup, the two companies will continue as separate and competitive divisions, operating as White Oliver and White Minneapolis-Moline.

To dramatize White Motor Corporation's new commitment to agriculture and to present the White Oliver equipment line for 1970, more than 1,200 White Oliver dealers, sales personnel, and invited guests were flown to the company's Advanced Products Division in Torrance, California in mid-November.

The company described the major features of the 1970 line as increased horsepower in many models, distinctive styling changes, rubber-mounted operator's platform with a conveniently regrouped instrument panel, hydraulic power brakes, hydraulic power take off, and a closed center hydraulic system.

More Member Participation

THE Sycamore FFA Chapter of Illinois has conducted a chapter livestock and crop program for many years. The chapter owns thirty-three head of registered Southdown ewes and operates forty acres of farm land. In addition, the chapter owns buildings, farm machinery, and livestock equipment valued at over $8,300. They also own coveralls for co-op members, hand tools for building and repairing equipment, livestock scales, three cameras, and a typewriter for correspondence and record keeping.

Dale Anderson, cooperative secretary, checks the sheep in the chapter barn.

A summer ago the chapter was selected as the state winner of the Illinois FFA Cooperative Activities Award. As a result, seven members were provided with an all expense paid trip to participate in the American Institute of Cooperation (AIC) Conference at Virginia Polytechnic Institute, Blacksburg, Virginia.

When the members returned from attending the AIC Conference, they encouraged the formation of a chapter cooperative. The objectives of the cooperative were to improve educational, purchasing, and selling aspects of the chapter's farming activities.

With the help of Advisor Jim Gullinger, the chapter membership studied the history and purposes of cooperatives. They felt that with the formation of a chapter co-op, more of the members would be able to participate in leadership and agricultural activities.

Finally, a charter was registered with the State of Illinois and officers and directors were elected. Main features of the Sycamore FFA Co-op's charter include such items as holding an annual stockholders' meeting in January of each year, selecting a non-member of the board of directors as manager of the day-to-day business, and that members own all voting stock while the chapter owns the savings stock.

Members feel the practices now used have helped increase chapter savings when purchasing livestock, feed, fuel, seed, fertilizer, and herbicides, as well as profits from the sale of livestock, wood, and grain. They also think the chapter's agricultural program will further the desire of its members to serve the Sycamore community better. *(By Steve Schroeder, Reporter)*

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National FFA Convention

OFFICERS

Continued from Page 9

acre home farm and 40 rented acres.

FFA Secretary Dennis Pharris, co-owner with his parents of a 700-acre cattle ranch and a feed company, is attending Hills Junior College, Hillsboro, Texas. He is studying agricultural economics and plans to continue farming after graduation. In FFA Dennis served as first vice president in his state association and held many district offices. In addition, he won the Lone Star Farmer award and was state president of a junior cattle association.

Well prepared for leadership, Steven Zumbach, Central vice president, served as vice president and president of the Iowa Association and won gold awards in dairy and crop farming and public speaking. He is now majoring in agribusiness at Iowa State University and has served as a college Freshman student government senator. In high school he served as president of the student body and president of his church youth group. Steve owns part interest in the 640-acre family farm. His main enterprises include a 60-cow dairy herd and an 800-hog finishing operation.

Donald Shinn, North Atlantic vice president, operates a 180-acre dairy farm—consisting of 100 head of cattle—on a 50-50 basis with his father. Don is currently attending Delaware Valley College where he is majoring in dairy husbandry. He is particularly interested in breeding and selection of dairy cattle, and plans to return to the home farm after college. In FFA he served as president of the New Jersey Association and was a chapter officer for three years.

Pacific Vice President David Dietz, Star State Farmer of Oregon and former president of the state association, farms 180 acres. He raises field crops, beef, custom harvests, and has a large Christmas tree operation. In high school he served on the Governor's Commission on Children and Youth and was chairman of an FFA tour service for 30,000 people. Dave attends Lewis and Clark College in Portland, and is enrolled in political science and economics.

Part interest in the 150-acre home farm, marketing of 800 hogs per year, and custom baling are all a part of Southern Vice President C. W. St. John's farming program. In addition, he took charge of the 40-acre chapter forest and served as a chapter officer and state FFA president in Arkansas. He also won the Star State Greenhand award. C. W. is now attending Southern State College in Magnolia, where he is studying pre-veterinary science. He is a member of the Governor's Executive Board Council and president of the student council.

New Sponsoring Chairman

MR. Sam White, Jr., president of the White Farm Equipment Company, subsidiary of the White Motor Company, was named the 1970 chairman of the Sponsoring Committee for the Future Farmers of America Foundation, Inc. He succeeds Mr. Donald Danforth, Jr., executive vice president of the Ralston Purina Company.

Working with Mr. White as first vice chairman will be Mr. George L. Varnes, group vice president of domestic subsidiaries for Eli Lilly & Company. The second vice chairman will be Mr. Fred Stines, publisher of *Successful Farming* magazine.

The FFA Foundation provides funds for local, state, and national award programs to help stimulate higher achievement among FFA members. In 1970, nearly $265,000 is budgeted for this purpose.

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Awards To Proficiency Winners

ALABAMA FFA members captured three of the 13 National Proficiency awards. In the ten other proficiency areas winning states were represented only once. Each national winner received $250 from the FFA Foundation and each regional winner was presented with $200.

From Alabama, Arthur Batchelor, Reform FFA, won the Forestry award; Eddie R. Jones, Section FFA, received the Poultry Farming award; and Charles Grant from Evergreen, won the Agribusiness award. In Agricultural Mechanics H. Charles Bachman of Johnstown, Ohio, won national proficiency honors. The Farm and Home Electrification award went to Danny Mitts of Morris, Oklahoma.

From Blissfield, Michigan, Keith L. Eisenmann was presented with the Crop Farming award. In Livestock Farming Dale Hawkins of Stet, Missouri, won the proficiency award while Helmut Teichert of the Simms FFA Chapter at Sun River, Montana, won the Dairy Farming award.

S. Kenneth Wilmot, Fillmore, New York, received the Soil and Water Management award and Timothy N. Titsworth, Cameron, Texas, was presented with the Natural Resources Development award.

The Placement in Agricultural Production honor was awarded to Jim Zaiger of the Grace M. Davis FFA of Modesto, California. Honors in Ornamental Horticulture went to Norman Charles Freel of Lake Wales, Florida, and Wayne Reihle of Davenport, Washington, received the Home Improvement award.

Winner Edward Hatchett

SPEAKERS

Continued from Page 9

sented $275 as second place winner; Danny Guidroz, of Lockport, Louisiana, who was awarded $250 as third place winner; and Robert Crank, of Morgantown, West Virginia, who received $225 as fourth place winner.

The winner's speech dealt with the bright prospects of the nation's rural communities and advocated a back-to-the-land movement from the overcrowded cities. Speeches given by the other contestants dealt with air pollution, the American farmer, and opportunities in agribusiness—all relevant to our changing agriculture.

Livestock Contest Ends In A Tie

STATE FFA teams from Wyoming, Texas, Minnesota, Kentucky, and Utah shared honors as winners in the five judging contests at the National FFA Convention. This year 194 teams competed in dairy cattle, dairy products, poultry, livestock, and meats judging.

The livestock judging contest ended in a tie for first place between the Needville, Texas, and Jackson, Minnesota, FFA teams. Members of the Needville team were Jimmy Ognoskie, Edgar Oberrender, and Bobby Fuchs. The Jackson team included Jim Resch, Van Johnson, and Owen Ingbritson. The high-scoring individual was Doug Geerdes, Everly, Iowa.

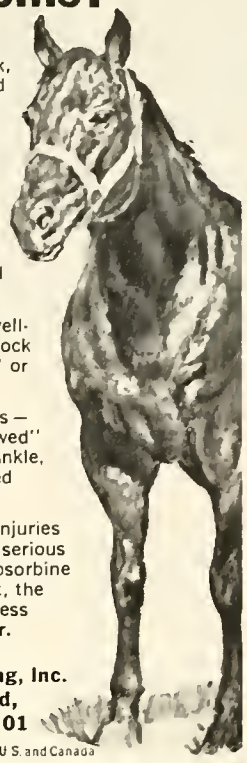
Members of the Franklin, Kentucky, team, winners of first place in dairy cattle judging, are Paul Snider, Jesse Jepson, and Paul Jones. Individual honors in dairy cattle contest went to Dale Winters, of Mountain Lake, Minnesota.

In the dairy products judging, the team from Garland, Utah, composed of Blaine Tanner, Kent Perry, and Garth Christensen, won first place. Harold Turner of Licking, Missouri, won individual honors.

First place in meats judging went to the FFA team from Garland, Texas. Team members include Timmy Wyatt, high scoring meats individual; John Cooper, and Scott Brank.

With Casey Epler as the high scoring individual, Burns, Wyoming, FFA won first in the poultry judging contest. Other team members are Eddie Stoner and Alan Epler.

Does your horse have these symptoms?



1. Stiff-gaited walk, or refusal to stand on all four legs are general symptoms of lameness. Check horse over carefully.

2. Swelling and heat on front of foreleg from knee to ankle. It's called "bucked shins."

3. Soft, painless swelling around the fetlock is called "windgall" or "windpuff."

4. Swollen tendons — swelling gives a "bowed" look from knee to ankle, so it's called "bowed tendon."

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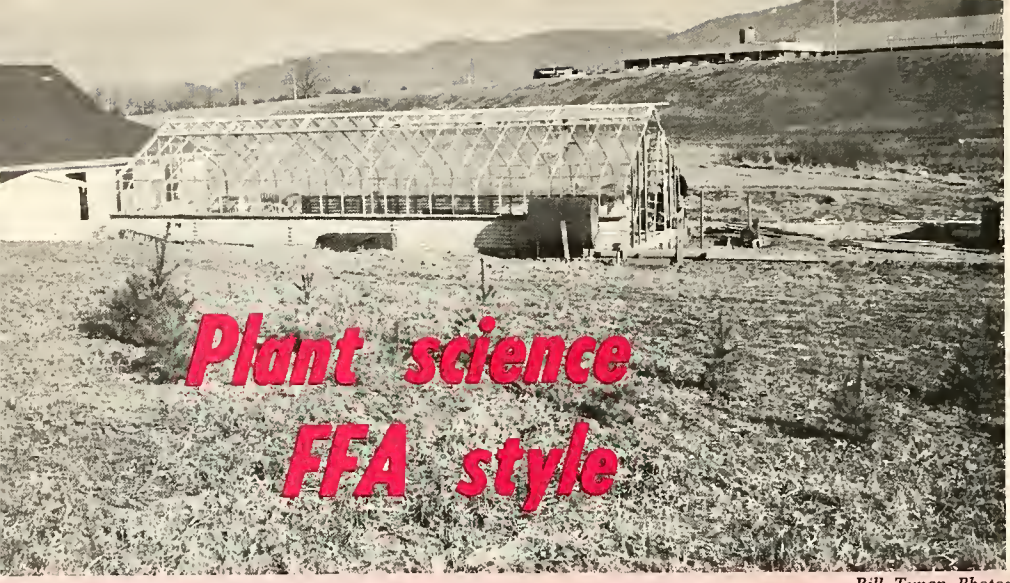

Plant science FFA style

Bill Tynan Photos

This photo shows the barn, greenhouse, and the Monument Mountain High School.

FOR nearly thirty years, members of the Stockbridge, Massachusetts, FFA sold about 1,500 started vegetable plants annually. However, the project, which provided experiences in soil, water, and plant management for over two generations of FFA members almost fell by the wayside.

In 1968, Stockbridge joined with West Stockbridge and Great Barrington in a new Monument Mountain Regional High School. The agriculture department was provided with excellent classroom and shop facilities, but no greenhouse. Previously a greenhouse had been made available by local citizens, Mrs. Marion Sprott and her daughter, Ethel.

Receipts from the sale of the plants were used to defray chapter expenses, such as trips to judging contests and annual father-and-son banquet. But, despite this, the chapter was able to build up a saving account of around $2,000. We were often asked, "What are you going to use the money for?"

The new Monument Mountain Chapter, as one of the first items of business voted to contribute $1,000 toward a greenhouse—complete with head house to provide an up-to-date plant science center.

The school administration accepted the proposal and looked into the cost of new facilities. Costs were found to be too high under present conditions. So, what was the chapter to do?

Right next to the road, on the property where the school was built, was a barn. The barn, 35 feet x 40 feet and divided into three sections, was a sound building, but needed a new roof on one part and some new windows. A used greenhouse, 18 feet x 100 feet, was also offered to the chapter for $600.

Chapter members decided, with an approval of school officials, to repair the barn and buy the greenhouse. This meant buying materials and services. However, once they got started and had something for people to see, help in every form came forth from almost every direction.

The school administration granted the chapter some federal money to pay six of the younger members to work during the summer of 1968. Marshall Gasten, chapter president in 1945 and now a contractor, dug the trench for the greenhouse foundation without charge. Other people in the community, especially former FFA members, provided further assistance.

Under the supervision of Advisor James Collins and myself, the members constructed every block, rib, and glass pane in the greenhouse. Gary D. Johnston, a senior at the University of Massachusetts and former president of the chapter while a high school senior, also contributed to the project. He was practice teaching at Monument Mountain and will soon start as a teacher of agriculture here.

After school opened in the fall, members completed the cement block foundation and erected half of the greenhouse before winter set in. The rest was finished this past summer. With hopes of finishing the entire plant service center sometime in 1970, the Monument Mountain FFA will have provided the school and community with a real valuable tool for teaching vo-ag in Berkshire County, Massachusetts. *(By Kenneth W. Milligan, Advisor)*

FFA members and local citizens alike take pride in building the new center.

Free for You

THESE materials are free! You can get a *single* copy of any or all of them by mailing the coupon below. Just circle the items you want and send your *complete* address.

93-Dairy Farm Mechanization—Are you planning on expanding your dairy operation? If so, this 16-page, full color handbook can offer you many ideas for designing mechanized feeding and manure removal systems. The handbook explains stanchion, free stall, combination stanchion-free stall, and confinement systems. (Badger Northland Inc.)

94-Freedom On The Road—No matter whether you're a beginner or a veteran sportscyclist, this 16-page booklet has something of interest for you. Besides containing 17 well-explained safety tips, the two-color booklet includes a glossary of sportscycle terms. It provides information about trail riding and equipment, and a quiz that lets you check your bike I.Q. (Suzuki Motor Corp.)

95-Problem Solvers—Information in this 8-page brochure pertains to buildings for multi-purpose farm use, machinery storage, livestock shelters, and grain storage. Buildings for agri-business and agri-service are also touched upon. Photographs are used to show things which you should consider in new buildings. (Star Steel Building Systems)

96-Facts About Grain Drying—This booklet tells you everything from what moisture content is best for harvesting a specific crop to what are the advantages and costs of drying. Many diagrams and photos make it easy to understand how various drying systems work. Also within the 16 pages are suggestions for planning and installing a drying system. (Hart-Carter Company)

97-Beef Sires—Included in this sire summary are the Angus, Hereford, Simmental, Red Poll, Red Angus, Polled Hereford, Shorthorn, Charolais, Brahman, Brangus, and Hays Converter breeds. Besides photos of each sire, it provides progany test records and an appraisal of the sire's breeding characteristics. (American Breeders Service)

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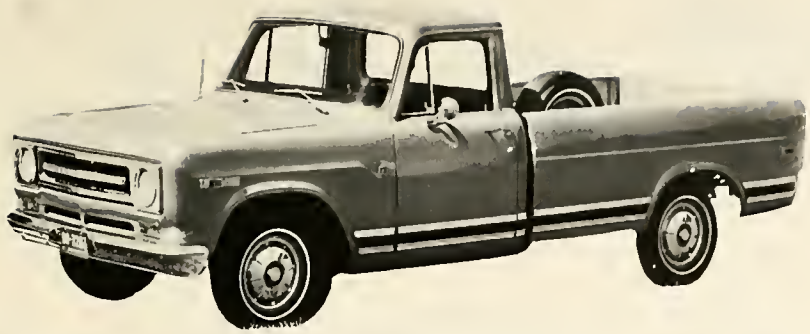
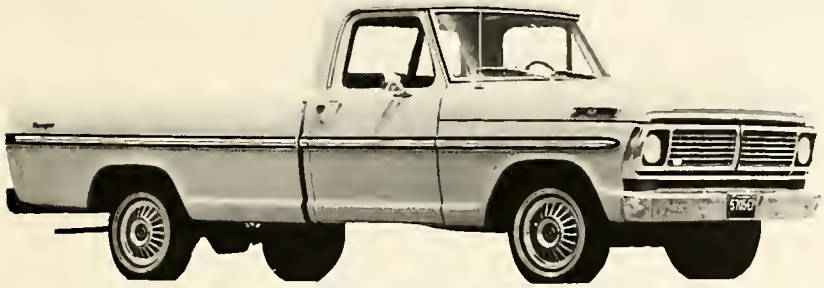
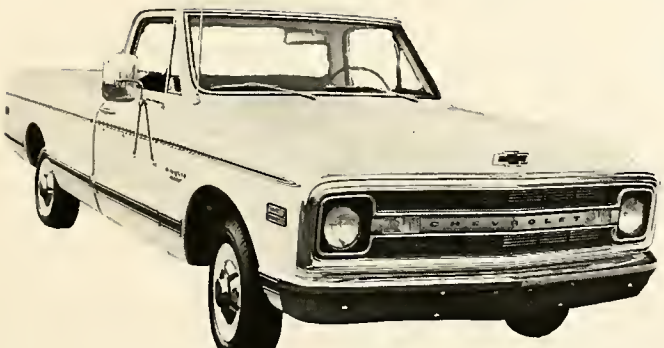


Shown here is International's all-around 1100D pickup with deluxe trim. The new pickup features simplicity of maintenance and fuel economy. It comes with a new standard Power-Thrift six cylinder inline engine rated at 145 horsepower.



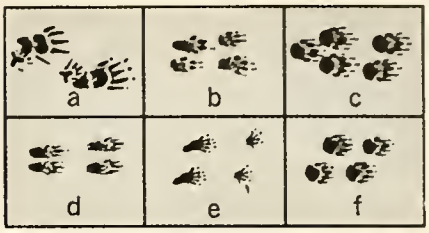
Standard equipment of the 1970 F-100 Ranger pickup by Ford includes automatic choke, Twin-I-Beam suspension, and a new Traction-Lok rear axle. Other new features include an optional sliding rear window and fiberglass belted tires.

Something New



New options on Chevrolet's Fleetside, ¾-ton pickup are a 400 cubic inch V-8 engine of 310 horsepower, an auxiliary fuel tank, and air-inflated rear shock absorbers. A disposable oil filter is now standard equipment on all engines.

The Dodge D100 Sweptline pickup comes with an 8-foot body and can carry up to 1,530 pounds. Special items are a 3-speed, synchro-shift transmission, Cushion-Beam suspension, and either a 140 horsepower slant six or a 210 horsepower V-8.



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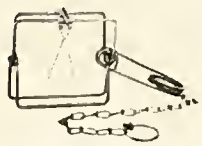

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HAVE YOU HEARD THIS ONE

A gambler wins a million to one shot.

Bookie: *"Why the long face? I'm the one that should shoot myself."*

Gambler: *"I've betted all my life. I finally win, and all I've got on it is a lousy buck."*

Tommy Slater
Magnolia, Arkansas

When the one-armed man walked into the barber shop, the barber asked *"Have you been in the shop before?"*

"No, it was a saw-mill accident," the man calmly answered, and took his seat.

Melvin Campbell
Louisville, Mississippi

Mess Sergeant: *"Look you wise guys. I've been cooking chow since before you were born."*

Private: *"Okay, but why serve it now?"*

Gerald Roberson
Pembroke, Georgia

Reporter: *"Do you know what Marshall Dillon died of?"*

Salesman: *"No, what?"*

Reporter: *"Dodge fever."*

Chris Chism
Fortuna, California

Smart Alec: (talking to cousin) *"If a girl kissed you, would you kiss her back?"*

Cousin: *"No, I'd kiss her face."*

Mark Kaiser
Neponset, Illinois

Bob: *"Have you heard about the new dance Sharon and Harvey Green do?"*

Sue: *"No, what is it called?"*

Bob: *"It's called the S&H Green Stamp."*

Willie Woods
Dunn, North Carolina

Erosion: Something that makes molehills out of mountains.

David Cox
Lehi, Utah

Charlie, the Greenhand

"Ellen, you've got the neatest refrigerator in town."

Housewife: *"Then stir in five glucks of molasses."*

Second housewife: *"Five what?"*

Housewife: *"Five glucks."*

Second housewife: *"What's a gluck?"*

Housewife: *"Oh, for goodness sake, just tip the bottle until it says 'gluck' five times."*

John Stenzel
Hartland, Minnesota

Jim: *"Our teacher has a bad memory."*

Steve: *"Why?"*

Jim: *"She told me to sit up straight for the present, and then forgot to give it to me."*

Toney McEacher
Lumber Bridge, North Carolina

A sergeant, sitting in front of a radar screen was watching a round dot. He said to the captain, *"It's either a strange plane coming in over New York, or somebody hit a high pop fly at Yankee Stadium."*

Kevin Hamilton
Battleboro, Vermont

Joe: *"Is your boss very mean?"*

Tom: *"Yes, he's mean, but he's fair."*

Joe: *"What do you mean, he's fair?"*

Tom: *"He's mean to everybody."*

David Zimmerman
Frederick, Maryland

One day three bears went for a walk. On returning home, papa bear said, *"Somebody ate all my soup!"* Baby bear said, *"Somebody ate mine, too!"* And mama bear said, *"For heaven sakes, I haven't even made any yet!"*

Ezzard Legington
Corrigan, Texas

A woman tried to talk a motorcycle cop out of giving her a ticket for speeding but to no avail. *"What do you do,"* she asked tartly, *"when you find someone who is really guilty?"*

"I couldn't say," he replied. *"All I ever catch are the innocent ones."*

Gerald Mohr
New Ulm, Minnesota

Q. Why is a pencil like a riddle?

A. It's no good without a point.

Ronald DeVault
Defiance, Ohio

The National FUTURE FARMER *will pay $1.00 for each joke selected for publication on this page. Jokes must be submitted on post cards addressed to The National* FUTURE FARMER, *Alexandria, Virginia 22309. In case of duplication, payment will be made for the first one received. Contributions cannot be acknowledged or returned.*

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- Overall ruggedness—from the roller chain on the pickup drive to the reinforced bale chamber. A hard-working machine that gets by with minimum upkeep.

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